

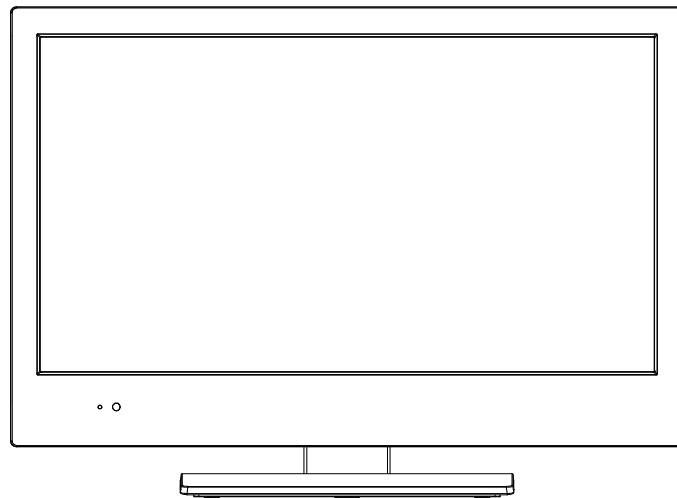


SANYO Factory Code Z6AE
Service Reference NO. 051

DP19241

SERVICE MANUAL

18.5" HDTV LCD



ORIGINAL
MFR'S VERSION A

Design and specifications are subject to change without notice.

SERVICING NOTICES ON CHECKING

1. KEEP THE NOTICES

As for the places which need special attentions, they are indicated with the labels or seals on the cabinet, chassis and parts. Make sure to keep the indications and notices in the operation manual.

2. AVOID AN ELECTRIC SHOCK

There is a high voltage part inside. Avoid an electric shock while the electric current is flowing.

3. USE THE DESIGNATED PARTS

The parts in this equipment have the specific characters of incombustibility and withstand voltage for safety. Therefore, the part which is replaced should be used the part which has the same character.

Especially as to the important parts for safety which is indicated in the circuit diagram or the table of parts as a $\triangle$ mark, the designated parts must be used.

4. BE CAREFUL WITH THE LCD PANEL

Avoid a shock to the panel while servicing. Take enough care to deal with it.

5. PUT PARTS AND WIRES IN THE ORIGINAL POSITION AFTER ASSEMBLING OR WIRING

There are parts which use the insulation material such as a tube or tape for safety, or which are assembled in the condition that these do not contact with the printed board. The inside wiring is designed not to get closer to the pyrogenic parts and high voltage parts. Therefore, put these parts in the original positions.

6. PERFORM A SAFETY CHECK AFTER SERVICING

Confirm that the screws, parts and wiring which were removed in order to service are put in the original positions, or whether there are the portions which are deteriorated around the serviced places serviced or not. Check the insulation between the antenna terminal or external metal and the AC cord plug blades. And be sure the safety of that.

(INSULATION CHECK PROCEDURE)

1. Unplug the plug from the AC outlet.
2. Remove the antenna terminal on TV and turn on the TV.
3. Insulation resistance between the cord plug terminals and the external exposure metal **[Note 2]** should be more than 1M ohm by using the 500V insulation resistance meter **[Note 1]**.
4. If the insulation resistance is less than 1M ohm, the inspection repair should be required.

[Note 1]

If you have not the 500V insulation resistance meter, use a Tester.

[Note 2]

External exposure metal: Antenna terminal
Headphone jack

HOW TO ORDER PARTS

Please include the following informations when you order parts. (Particularly the VERSION LETTER.)

1. MODEL NUMBER and VERSION LETTER

The MODEL NUMBER can be found on the back of each product and the VERSION LETTER can be found at the end of the SERIAL NUMBER.

2. PART NO. and DESCRIPTION

You can find it in your SERVICE MANUAL.

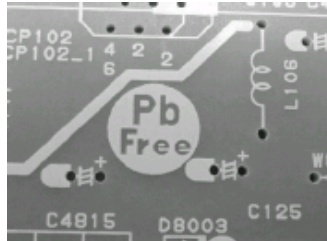
IMPORTANT

When you exchange IC and Transistor with a heat sink, apply silicon grease (YG6260M) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damage to the IC and Transistor).

ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:

PCBs (manufactured) using lead free solder will have a PbF printing on the PCB.
(Please refer to figures.)



Caution:

- Pb free solder has a higher melting point than standard solder;
Typically the melting point is 86°F~104°F(30°C~40°C) higher.
Please use a soldering iron with temperature control and adjust it to 650°F ± 20°F (350°C ± 10°C).
In case of using high temperature soldering iron, please be careful not to heat too long.
- Pb free solder will tend to splash when heated too high (about 1100°F/ 600°C).
- All products with the printed circuit board with PbF printing must be serviced with lead free solder.
When soldering or unsoldering, completely remove all of the solder from the pins or solder area,
and be sure to heat the soldering points with the lead free solder until it melts sufficiently.

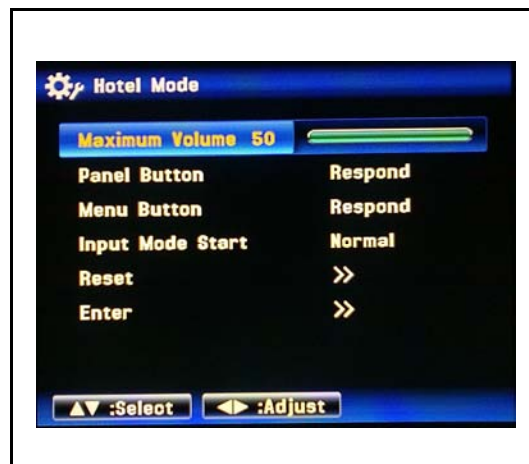
Recommendations

Recommended lead free solder composition is Sn-3.0Ag-0.5Cu.

HOTEL MODE FUNCTION

To set the Hotel mode, please follow the steps below.

1. In power on mode, set the VOLUME to minimum.
2. Press and hold the VOLUME DOWN button on the front panel.
3. Simultaneously press and hold the MENU button on the remote control for more than 2 seconds.
4. The Hotel mode setting menu will appear.
5. Using the UP/DOWN button on the remote control, select the desired mode. Then press the ENTER button.
6. Using the LEFT/RIGHT button on the remote control, set the mode to desired setting.
7. Using the UP/DOWN button on the remote control, select the ENTER. Then press the ENTER button of remote control.
8. The Hotel mode has now been set up.



To reset the Hotel mode, please follow the steps below.

1. In power on mode, set the VOLUME to minimum.
2. Press and hold the VOLUME DOWN button on the front panel.
3. Simultaneously press and hold the MENU button on the remote control for more than 2 seconds.
4. The Hotel mode setting menu will appear.
5. Using the UP/DOWN button on the remote control, select the RESET. Then press the ENTER button on the remote control.
6. The setting items has now been returned to initial value.

Setting item	Setting value	Initial value	FUNCTION
Maximum volume	0~50	50	Setting of the maximum volume value.
Panel button	RESPOND/ NO RESPOND	RESPOND	Effective/invalid setting of main key operation. (*Note 1)
Menu button			Effective/invalid setting of Menu key operation of set and remote control. (*Note 1)
Input mode start	NORMAL/ TV/AV/ COMPONENT/ HDMI/PC	NORMAL	Setting of input source at power supply On. (*Note 2)
Reset	——	——	Various settings of the Hotel mode function return initial State.

Note 1) Even if setting it to "No Respond", the service mode function are effective.

Note 2) If setting it to "NORMAL", it start up in same input source when you turn off the power before.

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GENERAL SPECIFICATIONS

G-1	TV System	LCD	LCD Size / Visual Size		18.50 inch / 470.1mmV	
			LCD Type		Color TFT LCD	
			Number of Pixels		1366(H) x 768(V)	
			Double Scan	View Range		No
				Left/Right Up/Down		85/85 degree
						80/80 degree
				Bright Dot	n≤3	
		Zero Bright Dot Ratio	70%			
Color System		NTSC				
	Speaker				2 Speaker	
		Position			Bottom	
		Size			1.0 x 2.7 inch	
		Impedance			8 ohm	
		Sound Output	Max		2.0W + 2.0W	
			10%(Typical)		---	
		G-2	Tuning System	Broadcasting System	Analog	US System M
	Digital			ATSC(8VSB)/QAM		
Tuner and Receive CH	System			1Tuner		
CH Coverage	Destination			US (W/CABLE)		
Intermediate Digital	2-69, 4A, A-5~A-1, A-I, J-W, W+1~W+94					
Frequency Analog	Picture(FP)			44.00MHz		
	Sound(FS)			45.75MHz		
	FP-FS			41.25MHz		
Preset CH	No					
Stereo/Dual TV Sound	US-Stereo					
Tuner Sound Muting	Yes					
G-3	Signal	Video Signal	Input Level	1 V p-p/75 ohm		
			Output Level	--		
			S/N Ratio (Weighted)	--		
			Horizontal Resolution at DVD Mode	--		
		RGB Signal	Output Level	--		
			Audio Signal	Input Level	-8.0dBm/50k ohm	
		Output Level		at DVD	--	
				at TV	--	
		Digital Output Level		0.5 V p-p/75 ohm		
		S/N Ratio at DVD (Weighted)		--		
		Harmonic Distortion		--		
		Frequency Response :		at DVD	--	
				at Video CD	--	
		at SVCD	--			
at CD	--					
G-4	Power	Power Source	AC	120V, 60Hz		
			DC	--		
		Power Consumption		24W at 120V 60Hz		
				at AC	--	
				at DC	0.3W at 120V 60Hz	
			Stand by (at AC)	Yes		
Protector	Energy Star	-- kWh/Year				
	Per Year					
	Power Fuse	Yes				
Safety Circuit	Yes					
IC Protector(Micro Fuse)	Yes					
G-5	Regulation	Safety	UL(UL60065_7th)/cUL(CSA E60065_03)			
		Radiation	FCC/IC			
		Laser	--			
G-6	Temperature	Operation	+5°C ~ +40°C			
		Storage	-20°C ~ +60°C			
		Space Around Unit	10cm (4inch)			
G-7	Operating Humidity	Less than 80% RH				
G-8	Clock and Timer	Clock	No			
		Sleep Timer	Max Time	120 Min		
		On Timer	Program	Yes 1Program		
		Off Timer	Program	No		
		Game Timer		No		
		Timer Back-up (at Power Off Mode)	more than	-- Min Sec		
		G-9	Remote Control	Unit	RC-RU	
Glow in Dark Remocon	No					
Remocon Format	SANYO					
Format	NEC					
Custom Code	38-C7h					
Power Source	Voltage(D.C)			3V		
	UM size x pcs			UM-4 x 2 pcs		
Total Keys	28 Keys					
Keys	Power			Yes		
	1			Yes		
	2			Yes		
	3			Yes		

GENERAL SPECIFICATIONS

		4	Yes
		5	Yes
		6	Yes
		7	Yes
		8	Yes
		9	Yes
		0	Yes
		-	Yes
		Recall (Quick View)	Yes
		Sleep	Yes
		Mute	Yes
		CH+ / Up	Yes
		CH- / Down	Yes
		VOL+ / Right	Yes
		VOL- / Left	Yes
		Menu	Yes
		Reset	Yes
		Exit	Yes
		Enter	Yes
		Input Select	Yes
		CCD (Closed Caption)	Yes
		Display	Yes
		Zoom (Picture Size)	Yes
		FAV +	No
		FAV -	No
		Audio	Yes
G-10	Features	Auto Shut Off	Yes
		Auto Search	No
		Power On Memory	Yes
		Hotel Mode	Yes
		Comb Filter	Yes
			3 -D
		Game Position	No
		Auto Setup	Yes
		Language	No
		TV Location	No
		Signal Type	Yes
		Automatic Search	Yes
		Picture Setting(TV)	Yes
		Picture Preference	Yes
		Brightness , Contrast , Color	Yes
		Tint	Yes
		Sharpness	Yes
		Color Temperature	Yes
		DNR	Yes
		Backlight	Yes
		Picture Setting(PC)	Yes
		HOR Position , VER Position	Yes
		Phase, Clock	Yes
		Red, Green, Blue	No
		Auto Adjust	Yes
		Audio	Yes
		MTS	Yes
		Equalizer Mode	Yes
		Tone Control (Bass/Treble/Balance)	Yes
		Equalizer Setting	Yes
		Stable Sound	No
		Surround	Yes
		Auto Volume(Automatic Volume Control)	Yes
		BBE	No
		SRS WOW (SRS 3D/Focus/Tru Bass)	No
		HDMI Audio	Yes
		Speakers(Variable Audio Out)	No
		Tuning	Yes
		CH Program	Yes
		Air/Cable	Yes
		ADD/DELETE	Yes
		Label	Yes
		CH Label	Yes
		Video Label	Yes
		Favorite CH	No
		V-Chip	Yes
		Type	USA Type
		RRT Setup	Yes
		Lock	No
		Hotel Lock	No
		Channel Lock	No
		Video Lock	No
		Panel Lock	No
		Menu Language	English
		DBC (Dynamic Backlight Control)	No
		Dynamic Gamma	Yes

GENERAL SPECIFICATIONS

	Signal Meter (DTV Signal)		Yes
	Closed Caption		Yes
	CC Advanced		Yes
	V-Chip Clear		Yes
	Picture Size		Yes
	Film Mode		Yes
	Aspect		No
	PFC(Power Factor circuit)		No
	Freeze frame		No
	PIP/POP		No
	Direct Input Selection		Yes
	PC Plug and Play		No
	Power On/Off Sound		Yes
	Power On LED On/Off		Yes
	PC Standby		Yes
	Digital Out	Dolby Digital	Yes
		MPEG	No
		PCM	Yes
		DTS	No
	PC Monitor Input		Yes
		VGA (640x480)	Yes (60,72,75Hz)
		VGA (720x400)	Yes (70Hz)
		WVGA (848x480)	No
		SVGA (800x600)	Yes (56,60,72,75Hz)
		XGA (1024x768)	Yes (60,70,75Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No
		WXGA+ (1440x900)	No
		FHD (1920x1080)	No
	HDMI Input		Yes
		VGA (640x480)	Yes (60Hz)
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	Yes (60Hz)
		CEC (ORION Standard)	No
		Deep Color	No
		xvYCC	No
	DVI to HDMI Input	VGA (640x480)	Yes (60,72,75Hz)
		VGA (720x400)	Yes (70Hz)
		WVGA (848x480)	No
		SVGA (800x600)	Yes (56,60,72,75Hz)
		XGA (1024x768)	Yes (60,70,75Hz)
		WXGA (1280x768)	Yes (60Hz)
		WXGA (1280x720)	Yes (60Hz)
		WXGA (1360x768)	Yes (60Hz)
		SXGA (1280x1024)	No
		WXGA+ (1440x900)	No
	Component Input	FHD (1920x1080)	No
			Yes
		720x480i (4:3)	Yes (60Hz)
		720x480i (16:9)	Yes (60Hz)
		720x480p (4:3)	Yes (60Hz)
		720x480p (16:9)	Yes (60Hz)
		720x576i (4:3)	No
		720x576i (16:9)	No
		720x576p (4:3)	No
		720x576p (16:9)	No
		1280x720p	Yes (60Hz)
		1920x1080i	Yes (60Hz)
		1920x1080p	No
	Wall Mount	Size W x H(mm)	Yes (100 x 100)
		Screw Size	M4 x 10
	Stand	Tilt	No
		Swivel	No

GENERAL SPECIFICATIONS

G-11	Accessories	Owner's Manual		Language	English / Spanish
				w/Guarantee Card	Yes
		Remote Control Unit			Yes
		Rod Antenna			No
			Poles	--	
			Terminal	--	
		Loop Antenna			No
			Terminal	--	
		U/V Mixer			No
		DC Car Cord (Center+)			No
		Guarantee Card			No
		Warning Sheet			No
		Circuit Diagram			No
		Antenna Change Plug			No
		Service Facility List			No
		Important Safeguard			No
		Dew/AHC Caution Sheet			No
		Quick Set-up Sheet			No
		Battery			No
			UM size	x pcs	--
			OEM Brand		--
		AC Adapter			No
		AC Cord (for AC Adapter)			No
		AC Cord			Yes
		Cable Tie			No
		AV Cord (2Pin-1Pin)			No
		Registration Card (NDL Card)			No
		300 to 75ohm Antenna Adapter			No
		Sheet Information (FCC)			No
		Sheet Information (DTV)			No
		Sheet Information (CEA)			No
		Sheet Information (Return)			Yes
		Sheet Information (Picture Quality)			Yes
		Sheet Information (Sheet Set Up)			No
		Sheet Information (HDMI)			No
		Cleaning Cloth			No
		Stand Screw			Yes (2pcs)
		Stand			Yes
G-12	Interface	Switch	Front	Power	Yes
				Channel Up/Menu Up	Yes
				Channel Down/Menu Down	Yes
				Volume Up/Menu >	Yes
				Volume Down/Menu <	Yes
				Menu	Yes
				Play	No
				Eject	No
				Skip+, Search+	No
				Skip-, Search-	No
				Still/Pause	No
				Stop	No
				Main Power SW	No
				Input Select/Enter	Yes
			Rear	Main Power SW	No
		Indicator		Power/Stand-By	Yes (Green / Red)
				PC Stand-By	Yes (Red Blinking)
				Power Wake Up	No
				On Timer	No
		Terminals	Side	Video Input 1	RCA x 1
				Audio Input 1	RCA x 2(L/MONO, R)
				S - Input 1	No
				Video Input 2	No
				Audio Input 2	No
				S - Input 2	No
				Video Output	No
				Audio Output	No
				Component Input 1	RCA x 3
				Analog Audio	Video1 Audio Input Alternative
				Component Input 2	No
				Analog Audio	No
				HDMI Input 1	Yes
				Analog Audio	PC Audio Input Alternative
				HDMI Input 2	No
				Analog Audio	No
				VHF/UHF Antenna Input	F Type
				USB (Software Update)	Yes
				Other Terminal	Headphone
				AC Inlet	Yes
		Terminals	Rear	PC Monitor Input	Yes

GENERAL SPECIFICATIONS

		Analog Audio	Mini Pin Jack(φ3.5), STEREO
		Digital Audio Output	Coaxial
		Sub Woofer Out	No
		DC Jack (Center +)	No
		Video Input 3	No
		Audio Input 3	No
		S - Input 3	No
		USB (Software Update)	No
		USB (Time Shift)	No
		USB (JPEG/MP3/Software Update)	No
G-13	Set Size	Approx. W x D x H (mm)	450 x 143 x 337.5
		w/o Handle, Stand Approx. W x D x H (mm)	450 x 48 x 307.5
G-14	Weight	Net (Approx.)	2.6kg (5.7lbs)
		Net w/o Handle, Stand (Approx.)	2.4kg (5.3lbs)
		Gross (Approx.)	3.6kg (8.0lbs)
		Gross w/Master Carton (Approx.)	--- kg (--- lbs)
G-15	Carton	Master Carton	No
		Content	--- Sets
		Material	--- / ---
		Dimensions W x D x H(mm)	---
		Description of Origin	---
	Gift Box	Material	Single/White
		W/Color Photo Label	No
		W/Handle	No
		Dimensions W x D x H(mm)	520 x 403 x 128
		Description of Origin	No
	Drop Test		1 Corner / 3 Edges / 6 Surfaces
		Height (cm)	80
	Container Stuffing (40' container)		2268 Sets/40' container
	w/Pallet		No
	w/Wrapping		No
G-16	Material	Cabinet Cabinet Front	ABS 94HB
		Rear	PS 94V0 NON-DECABROM
		Stand	PS 94HB
		Jack Panel	--
	PCB	Non-Halogen Demand	No
		Eyelet Demand	Yes
G-17	Environment	Environmental standard requirement	Green procurement of SANYO
	Pb-free		Phase3(Phase3A)
		Measures for Whisker	Yes

DISASSEMBLY INSTRUCTIONS

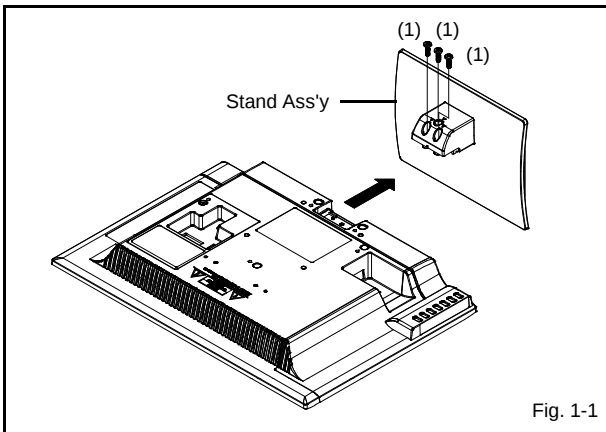
1. REMOVAL OF MECHANICAL PARTS AND P.C. BOARDS

CAUTION

Be careful not to remove the FFC cable forcibly, because the FFC cable may be damaged.

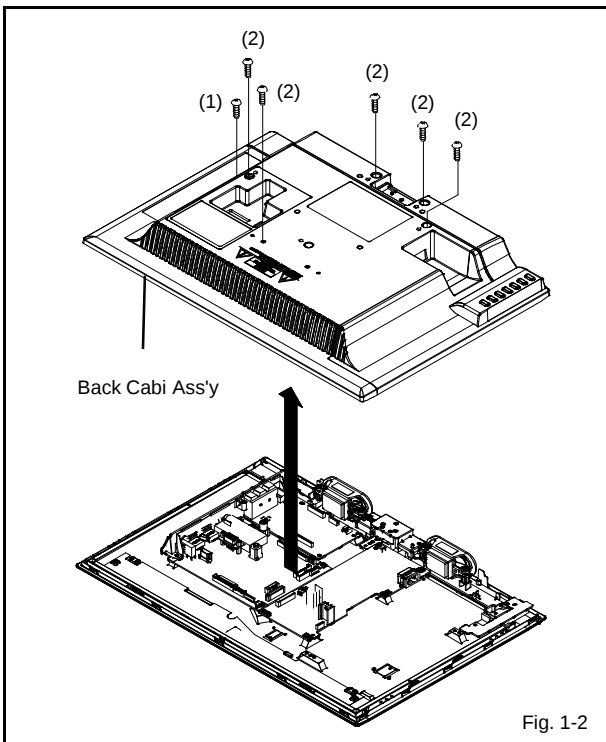
1-1: STAND ASS'Y (Refer to Fig. 1-1)

1. Remove the 3 screws (1).
2. Remove the Stand Ass'y in the direction of arrow.



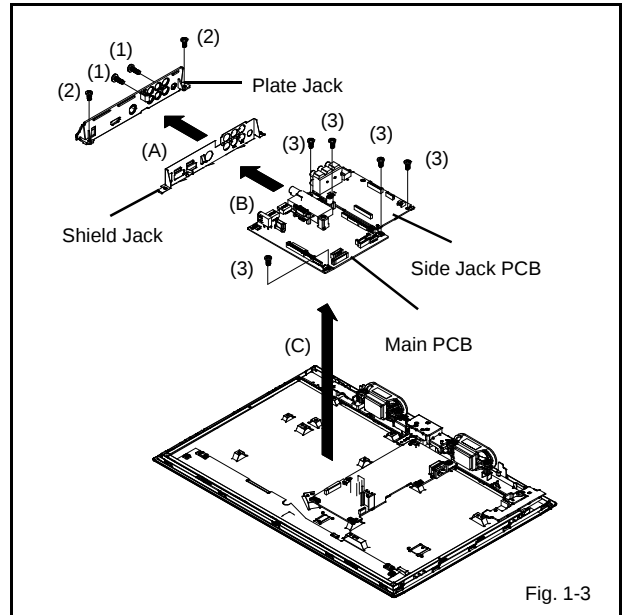
1-2: BACK CABI ASS'Y (Refer to Fig. 1-2)

1. Remove the screw (1).
2. Remove the 5 screws (2).
3. Remove the Back Cabi Ass'y in the direction of arrow.



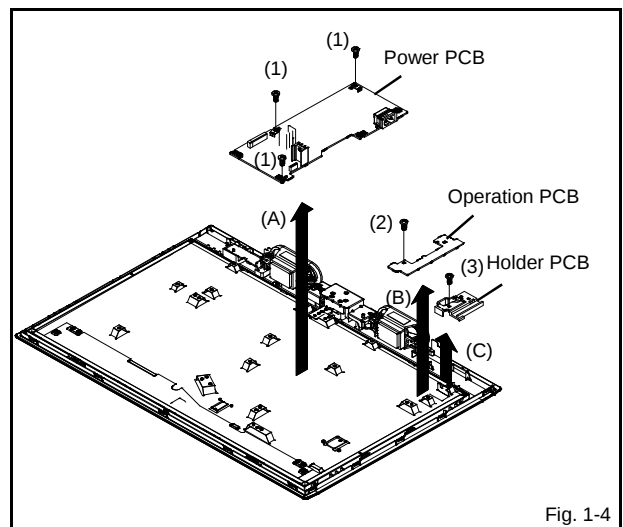
1-3: MAIN PCB / SIDE JACK PCB (Refer to Fig. 1-3)

1. Remove the 2 screws (1)
2. Remove the 2 screws (2)
3. Remove the Plate Jack in the direction of arrow (A).
4. Remove the Shield Jack in the direction of arrow (B).
5. Disconnect the following connectors: **(CP301, CP2201, CP2804, CP3003, CP4202 and CP7601)**.
6. Remove the 5 screws (3)
7. Remove the Main PCB and Side Jack PCB in the direction of arrow (C).



1-4: POWER PCB (Refer to Fig. 1-4)

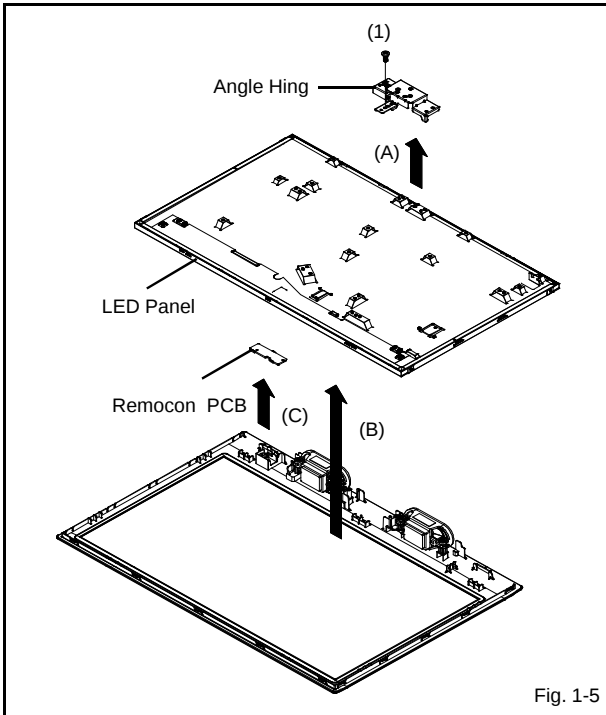
1. Remove the 3 screws (1)
2. Disconnect the following connector: **(CP7001)**.
3. Remove the Power PCB in the direction of arrow (A).
4. Remove the screw (2).
5. Remove the Operation PCB in the direction of arrow (B).
6. Remove the screw (3).
7. Remove the Holder PCB in the direction of arrow (C).



DISASSEMBLY INSTRUCTIONS

1-5: LED PANEL/REMOCON PCB (Refer to Fig. 1-5)

1. Remove the screw (1).
2. Remove the Angle Hing in the direction of arrow (A).
3. Remove the LED Panel in the direction of arrow (B).
4. Remove the Remocon PCB in the direction of arrow (C).



DISASSEMBLY INSTRUCTIONS

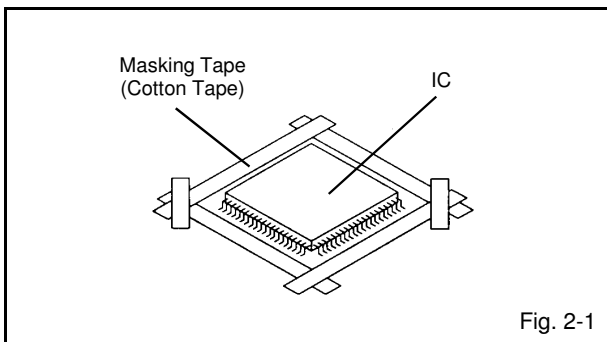
2. REMOVAL AND INSTALLATION OF FLAT PACKAGE IC

REMOVAL

1. Put Masking Tape (cotton tape) around the Flat Package IC to protect other parts from any damage. (Refer to Fig. 2-1.)

NOTE

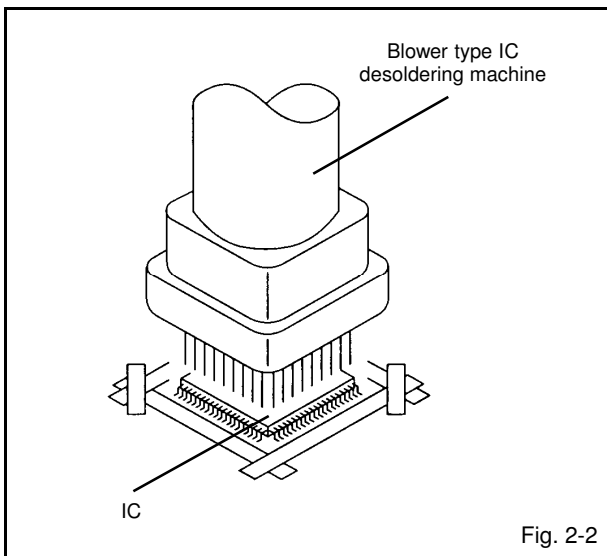
Masking is carried out on all the parts located within 10 mm distance from IC leads.



2. Heat the IC leads using a blower type IC desoldering machine. (Refer to Fig. 2-2.)

NOTE

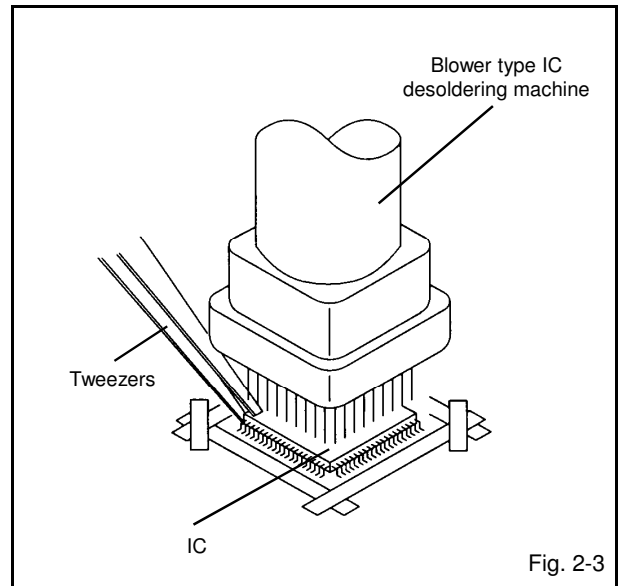
Do not rotate or move the IC back and forth, until IC can move back and forth easily after desoldering the leads completely.



3. When IC starts moving back and forth easily after desoldering completely, pickup the corner of the IC using tweezers and remove the IC by moving with the IC desoldering machine. (Refer to Fig. 2-3.)

NOTE

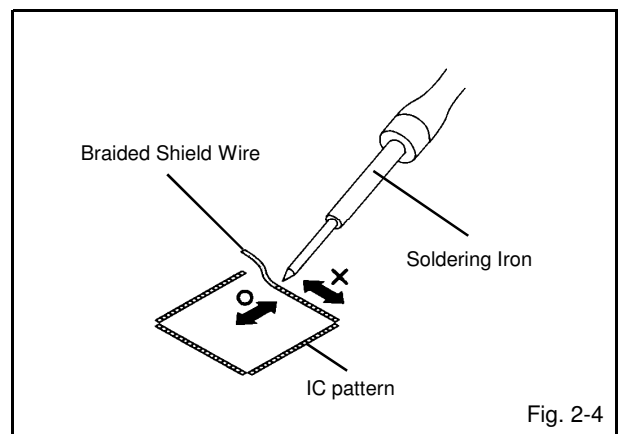
Some ICs on the PCB are affixed with glue, so be careful not to break or damage the foil of each IC leads or solder lands under the IC when removing it.



4. Peel off the Masking Tape.
5. Absorb the solder left on the pattern using the Braided Shield Wire. (Refer to Fig. 2-4.)

NOTE

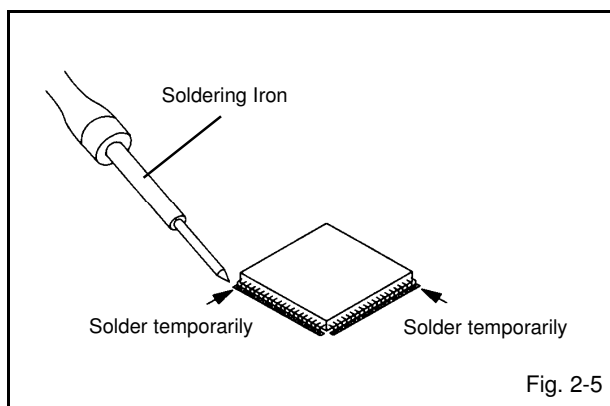
Do not move the Braided Shield Wire in the vertical direction towards the IC pattern.



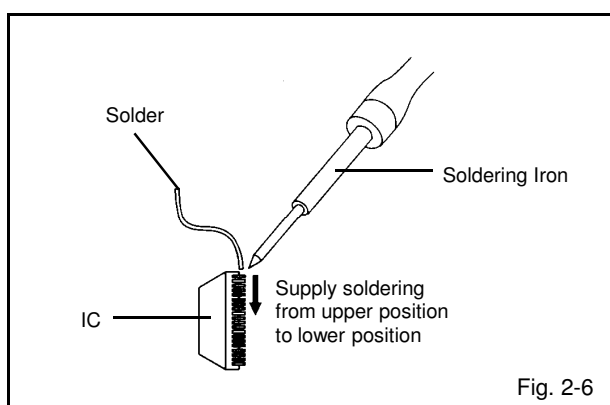
DISASSEMBLY INSTRUCTIONS

INSTALLATION

1. Take care of the polarity of new IC and then install the new IC fitting on the printed circuit pattern. Then solder each lead on the diagonal positions of IC temporarily. **(Refer to Fig. 2-5.)**



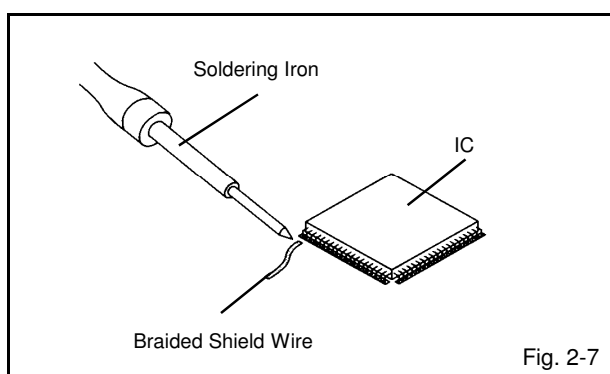
2. Supply the solder from the upper position of IC leads sliding to the lower position of the IC leads. **(Refer to Fig. 2-6.)**



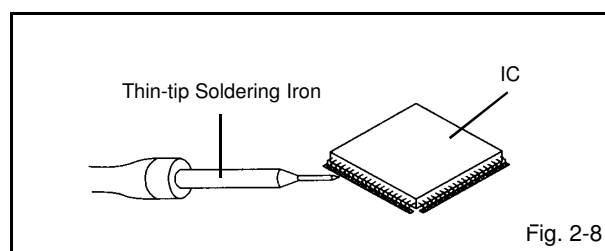
3. Absorb the solder left on the lead using the Braided Shield Wire. **(Refer to Fig. 2-7.)**

NOTE

Do not absorb the solder to excess.



4. When bridge-soldering between terminals and/or the soldering amount are not enough, resolder using a Thintip Soldering Iron. **(Refer to Fig. 2-8.)**



5. Finally, confirm the soldering status on four sides of the IC using a magnifying glass. Confirm that no abnormality is found on the soldering position and installation position of the parts around the IC. If some abnormality is found, correct by resoldering.

NOTE

When the IC leads are bent during soldering and/or repairing, do not repair the bending of leads. If the bending of leads are repaired, the pattern may be damaged. So, always be sure to replace the IC in this case.

SERVICE MODE LIST

This unit is provided with the following SERVICE MODES so you can repair, examine and adjust easily.

To enter to the SERVICE MODE function, press and hold both buttons simultaneously on the main unit and on the remote control for more than a the standard time in the appropriate condition. (See below chart.)

Set Condition	Set Key	Remocon Key	Standard Time	Operations
TV mode	VOL. DOWN (Minimum)	0	2 sec.	Releasing of V-CHIP PASSWORD.
POWER ON	VOL. DOWN (Minimum)	1	2 sec.	Initialization of factory TV data. NOTE: If you set factory initialization, the memories are reset such as the channel setting, and the POWER ON total hours.
POWER ON	VOL. DOWN (Minimum)	6	2 sec.	Can be checked of the INITIAL DATA of MEMORY IC. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
POWER ON	VOL. DOWN (Minimum)	8	2 sec.	Check of the SUM DATA, POWER ON total hours and MICON VERSION on the screen. Refer to the "WHEN REPLACING EEPROM (MEMORY) IC".
POWER ON	VOL. DOWN (Minimum)	9	2 sec.	Display of the Adjustment MENU on the screen. Refer to the "ELECTRICAL ADJUSTMENT" (On-Screen Display Adjustment).
POWER ON	VOL. DOWN (Minimum)	MENU	2 sec.	Releasing of HOTEL MODE FUNCTION Refer to the "HOTEL MODE FUNCTION".

WHEN REPLACING EEPROM (MEMORY) IC

CONFIRMATION OF CHECK SUM, POWER ON TOTAL HOURS AND MICON VERSION

Initial total of MEMORY IC, POWER ON total hours and MICON VERSION can be checked on the screen. Total hours are displayed in 16 system of notation.

NOTE: If you set a factory initialization, the total hours is reset to "0".

Please refer to "CONFIRMATION OF INITIAL DATA" when SUM DATA is not corresponding.

1. Turn on the POWER, and set to the ALL mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(8)** on the remote control for more than 2 seconds.
4. After the confirmation of each check sum, turn off the power.

NOTE: The each item value might be different according to each set.

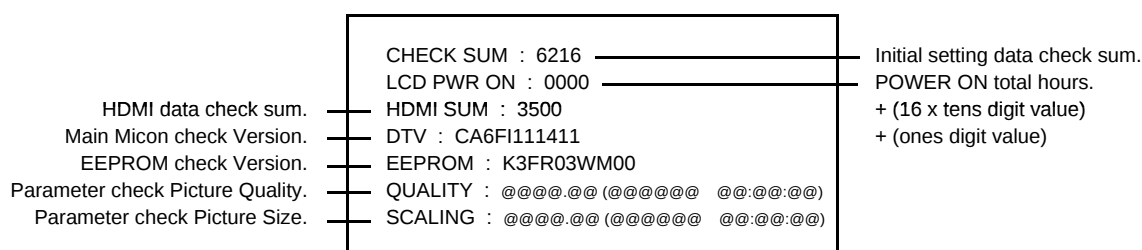


FIG. 1

CONFIRMATION OF INITIAL DATA

If a service repair is undertaken where it has been required to change the MEMORY IC, the following steps should be taken to ensure correct data settings while making reference to INITIAL SETTING TABLE (Attached "INITIAL DATA").

1. Turn on the POWER, and set to the ALL mode.
2. Set the VOLUME to minimum.
3. Press both VOL. DOWN button on the set and Channel button **(6)** on the remote control for more than 2 seconds.
ADDRESS and DATA should appear as FIG 2.

NOTE: No need to set data other position than 0200~0F79.

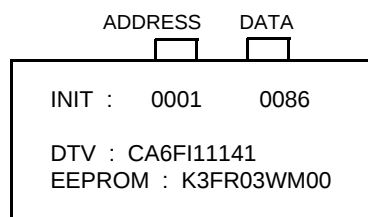


FIG. 2

4. ADDRESS is now selected and should "blink". Using the UP/DOWN button on the remote, step through the ADDRESS until required ADDRESS to be changed is reached.
5. Press VOL.UP/DOWN button to select DATA. When DATA is selected, it will "blink".
6. Again, step through the DATA using UP/DOWN button until required DATA value has been selected.
7. Pressing VOL.UP/DOWN button will take you back to ADDRESS for further selection if necessary.
8. Repeat steps 4 to 6 until all data has been checked.
9. When satisfied correct DATA has been entered, turn POWER off (return to STANDBY MODE) to finish DATA input.

After the data input, set to the initializing of shipping.

10. Turn on the Power.
11. Set the VOLUME to minimum.
12. Press both VOL. DOWN button on the set and Channel button (1) on the remote control for more than 2 seconds.
13. After the finishing of the initializing of shipping, the unit will turn off automatically.
The unit will now have the correct DATA for the new MEMORY IC.

ELECTRICAL ADJUSTMENTS

1. ADJUSTMENT PROCEDURE

Read and perform these adjustments when repairing the circuits or replacing electrical parts or PCB assemblies.

CAUTION

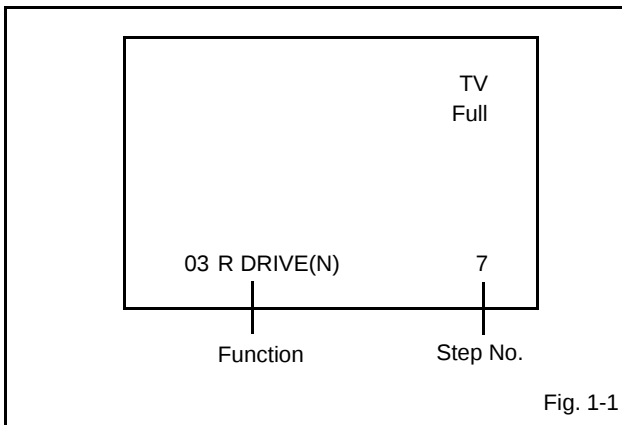
- Use an isolation transformer when performing any service on this chassis.
- When removing a PCB or related component, after unfastening or changing a wire, be sure to put the wire back in its original position.
- When you exchange IC and Transistor with a heat sink, apply silicon grease (**YG6260M**) on the contact section of the heat sink. Before applying new silicon grease, remove all the old silicon grease. (Old grease may cause damages to the IC and Transistor).

Prepare the following measurement tools for electrical adjustments.

1. Pattern Generator

On-Screen Display Adjustment

1. Set the VOLUME to minimum.
2. Press the VOL. DOWN button on the set and the channel button (**9**) on the remote control for more than 2 seconds to display adjustment mode on the screen as shown in **Fig. 1-1**.



3. Use the CH. UP/DOWN button or Channel button (**0-9**) on the remote control to select the options shown in **Fig. 1-2**.
4. Press the MENU button on the remote control to end the adjustments.
5. To display the adjustment screen for TV, AV, COMPONENT, HDMI and PC mode, press the INPUT SELECT button on the remote control.
6. Receive the DIGITAL broadcasting.
7. To display the adjustment screen for DTV mode, select the digital channel.
8. Press the VOL.DOWN button on the set and the channel (**9**) on the remote control for more than 2 seconds.

NO.	FUNCTION	NO.	FUNCTION
03	R DRIVE(N)	35	TINT
04	R CUTOFF(N)	36	SHARP H1 MAX
05	G DRIVE(N)	37	SHARP H1 MIN
06	G CUTOFF(N)	38	SHARP H2 MAX
07	B DRIVE(N)	39	SHARP H2 MIN
08	B CUTOFF(N)	40	SHARP H3 MAX
09	R DRIVE(C)	41	SHARP H3 MIN
10	R CUTOFF(C)	42	SHARP H4 MAX
11	G DRIVE(C)	43	SHARP H4 MIN
12	G CUTOFF(C)	44	SHARP H5 MAX
13	B DRIVE(C)	45	SHARP H5 MIN
14	B CUTOFF(C)	46	SHARP V1 MAX
15	R DRIVE(W)	47	SHARP V1 MIN
16	R CUTOFF(W)	48	SHARP V2 MAX
17	G DRIVE(W)	49	SHARP V2 MIN
18	G CUTOFF(W)	50	CONTRAST CENTER
19	B DRIVE(W)	51	CONTRAST MAX
20	B CUTOFF(W)	52	CONTRAST MIN
29	BAK LIGHT CENT	53	COLOR CENTER
30	BAK LIGHT MAX	54	COLOR MAX
31	BAK LIGHT MIN	55	COLOR MIN
32	BRIGHTNESS CENT	58	CONTRAST 40
33	BRIGHTNESS MAX		
34	BRIGHTNESS MIN		

Fig. 1-2

2. BASIC ADJUSTMENTS

2-1: WHITE BALANCE

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the gray scale pattern from the Pattern Generator.
3. Press the INPUT SELECT button on the remote control to set to the AV mode.
4. Using the remote control, set the brightness and contrast to normal position.
5. Activate the adjustment mode display of **Fig. 1-1** and press the channel button (**03**) on the remote control to select "R DRIVE(N)".
6. Press the CH. UP/DOWN button on the remote control to select the "R CUTOFF(N)", "B DRIVE(N)", "B CUTOFF(N)", "R DRIVE(C)", "R CUTOFF(C)", "B DRIVE(C)", "B CUTOFF(C)", "R DRIVE(W)", "R CUTOFF(W)", "B DRIVE(W)" or "B CUTOFF(W)".
7. Adjust the VOL.UP/DOWN button on the remote control to whiten the R DRIVE(N), R CUTOFF(N), B DRIVE(N), B CUTOFF(N), R DRIVE(C), R CUTOFF(C), B DRIVE(C), B CUTOFF(C), R DRIVE(W), R CUTOFF(W), B DRIVE(W) and B CUTOFF(W) at each step tone sections equally.
8. Perform the above adjustments 6 and 7 until the white color is achieved.

ELECTRICAL ADJUSTMENTS

2-2: BRIGHTNESS CENT

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
5. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "116".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
11. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "126".
12. Check if the picture is normal.
13. Receive the color bar pattern. (COMPONENT Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
16. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
17. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "126".
18. Check if the picture is normal.
19. Receive the color bar pattern. (HDMI Input)
20. Using the remote control, set the brightness and contrast to normal position.
21. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
22. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(32)** on the remote control to select "BRIGHTNESS CENT".
23. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "126".
24. Check if the picture is normal.

2-3: CONTRAST MAX

1. Place the set in Aging Test for more than 15 minutes.
2. Receive the color bar pattern. (RF Input)
3. Using the remote control, set the brightness and contrast to normal position.
4. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
5. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "173".
6. Check if the picture is normal.
7. Receive the color bar pattern. (VIDEO Input)
8. Using the remote control, set the brightness and contrast to normal position.
9. Press the INPUT SELECT button on the remote control to set to the AV mode.
10. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
11. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "131".
12. Check if the picture is normal.
13. Receive the color bar pattern. (COMPONENT Input)
14. Using the remote control, set the brightness and contrast to normal position.
15. Press the INPUT SELECT button on the remote control to set to the COMPONENT mode.
16. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
17. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "145".
18. Check if the picture is normal.
19. Receive the color bar pattern. (HDMI Input)
20. Using the remote control, set the brightness and contrast to normal position.
21. Press the INPUT SELECT button on the remote control to set to the HDMI mode.
22. Activate the adjustment mode display of **Fig. 1-1** and press the channel button **(51)** on the remote control to select "CONTRAST MAX".
23. Press the VOL.UP/DOWN button on the remote control until the contrast step No. becomes "143".
24. Check if the picture is normal.

ELECTRICAL ADJUSTMENTS

2-4: Confirmation of Fixed Value (Step No.)

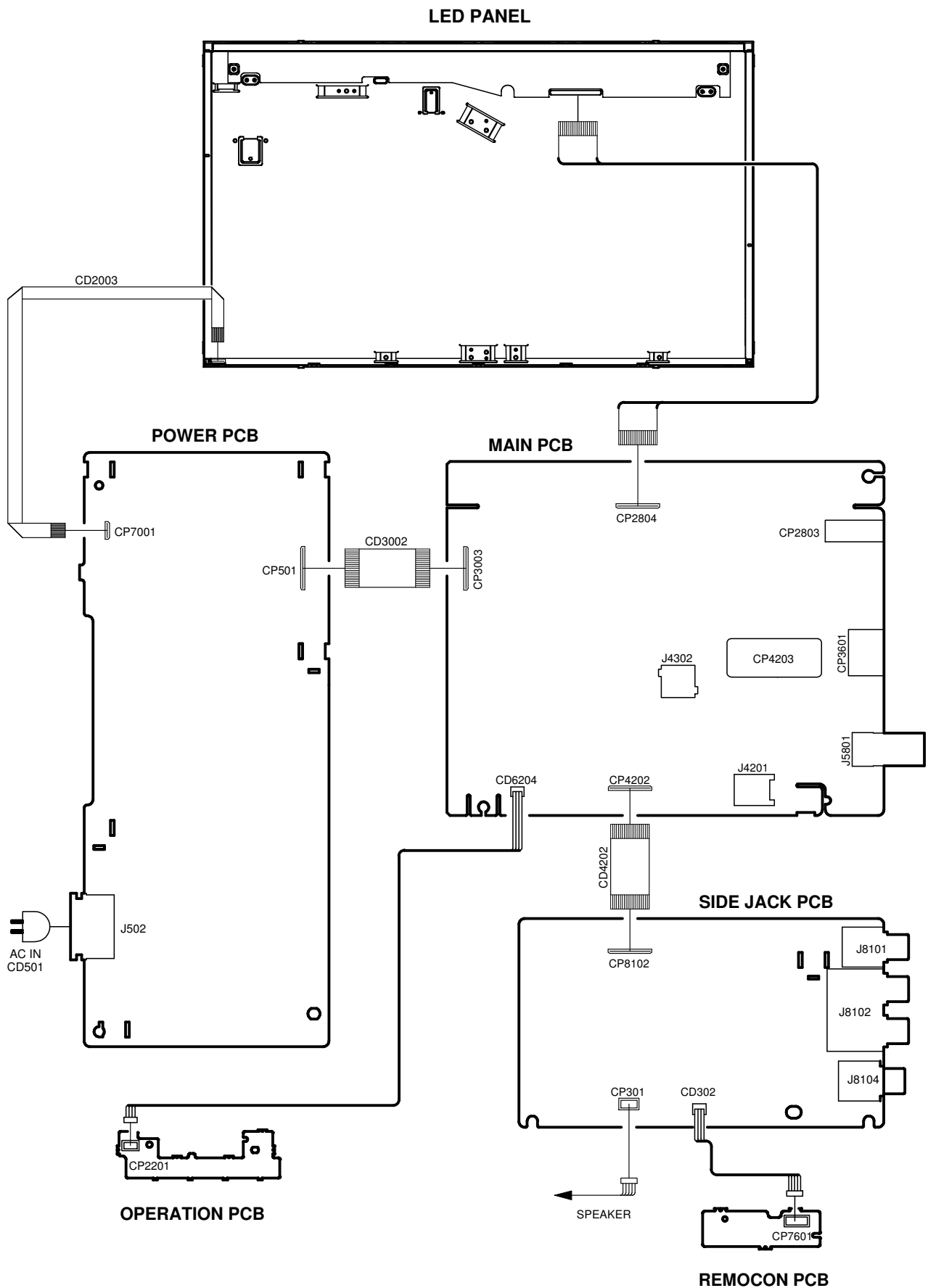
Please check if the fixed values of each of the adjustment item is set correctly referring below. (TV/AV/COMPONENT/HDMI//PC/DTV)

NO.	FUNCTION	TV	AV		COMPONENT					HDMI					PC/HDMI-DVI		PC							DTV					
			CVBS	Y/C	480i	480p	720p	1080i	1080p	VGA	480i	480p	720p	1080i	1080p	VGA	XGA	640x480	720x400	800x600	1024x768	1280x768	1280x720	1360x768	480i	480p	720p	1080i	1080p
		Step No.	Step No.	Step No.					Step No.					Step No.		Step No.							Step No.						
3	R DRIVE (N)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
4	R CUTOFF (N)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
5	G DRIVE (N)	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
6	G CUTOFF (N)	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
7	B DRIVE (N)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
8	B CUTOFF (N)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
9	R DRIVE (C)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
10	R CUTOFF (C)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
11	G DRIVE (C)	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	G CUTOFF (C)	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	B DRIVE (C)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
14	B CUTOFF (C)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
15	R DRIVE (W)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
16	R CUTOFF (W)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
17	G DRIVE (W)	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	G CUTOFF (W)	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	B DRIVE (W)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
20	B CUTOFF (W)	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
29	BAK LIGHT CENT	54	54	-	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	54	
30	BAK LIGHT MAX	100	100	-	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	
31	BAK LIGHT MIN	8	8	-	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	
32	BRIGHT CENT	116	126	-	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	126	
33	BRIGHT MAX	200	200	-	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	
34	BRIGHT MIN	30	30	-	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	
35	TINT	45	41	-	41	41	41	41	41	41	41	41	41	41	41	50	50	50	50	50	50	50	50	50	43	43	43	43	
36	SHARP H1 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
37	SHARP H1 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
38	SHARP H2 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
39	SHARP H2 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	SHARP H3 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
41	SHARP H3 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	SHARP H4 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
43	SHARP H4 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	SHARP H5 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
45	SHARP H5 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	SHARP V1 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
47	SHARP V1 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	SHARP V2 MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
49	SHARP V2 MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	CONTRAST CENTER	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
51	CONTRAST MAX	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
52	CONTRAST MIN	60	60	-	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	60	
53	COLOR CENTER	183	215	-	200	200	200	200	200	200	200	200	200	200	200	183	183	183	183	183	183	183	183	200	200	200	200	200	
54	COLOR MAX	255	255	-	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	255	
55	COLOR MIN	0	0	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
58	CONTRAST 40	*	*	-	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	

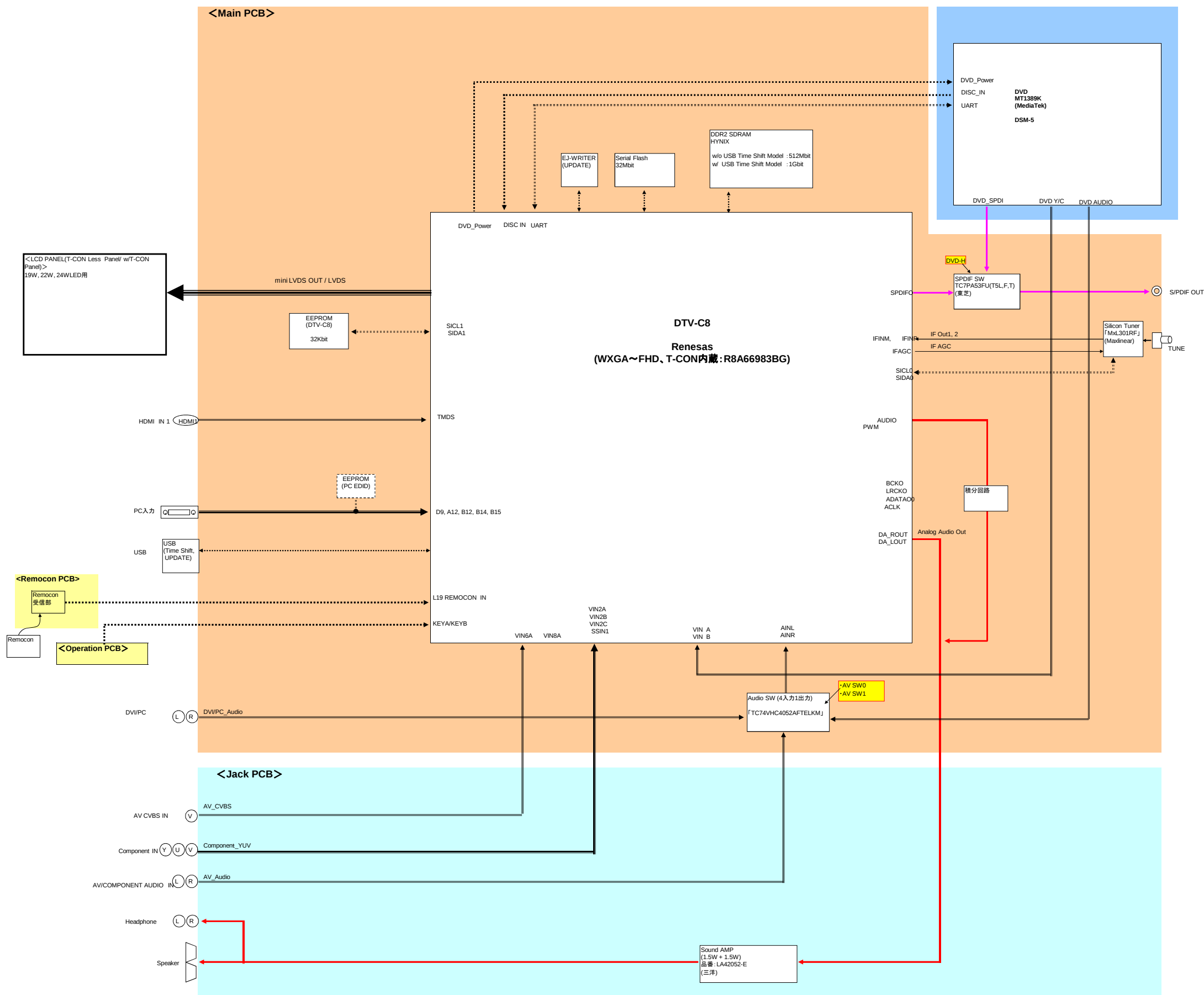
NOTE: For the step no. with * mark, please adjust it according to the situation of the set.

ELECTRICAL ADJUSTMENTS

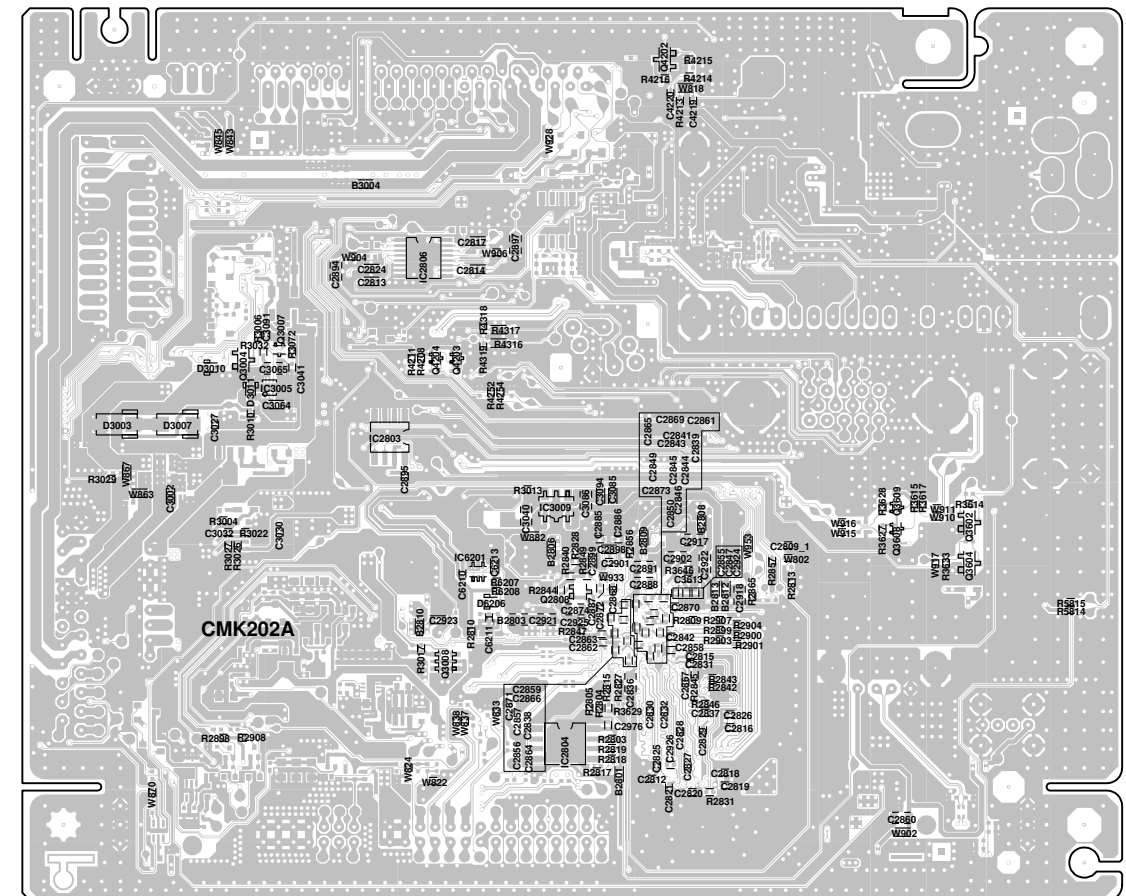
3. ELECTRICAL ADJUSTMENT PARTS LOCATION GUIDE (WIRING CONNECTION)



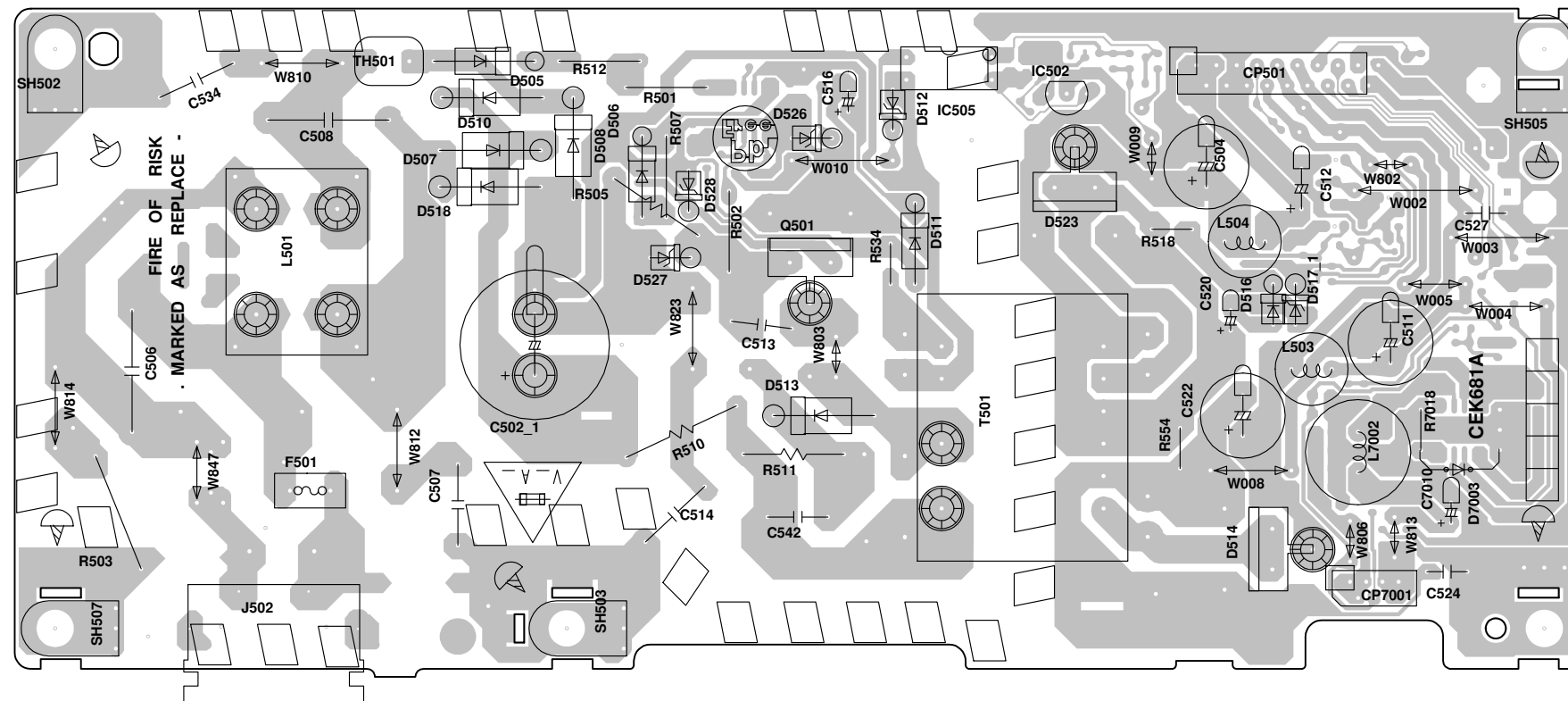
BLOCK DIAGRAM



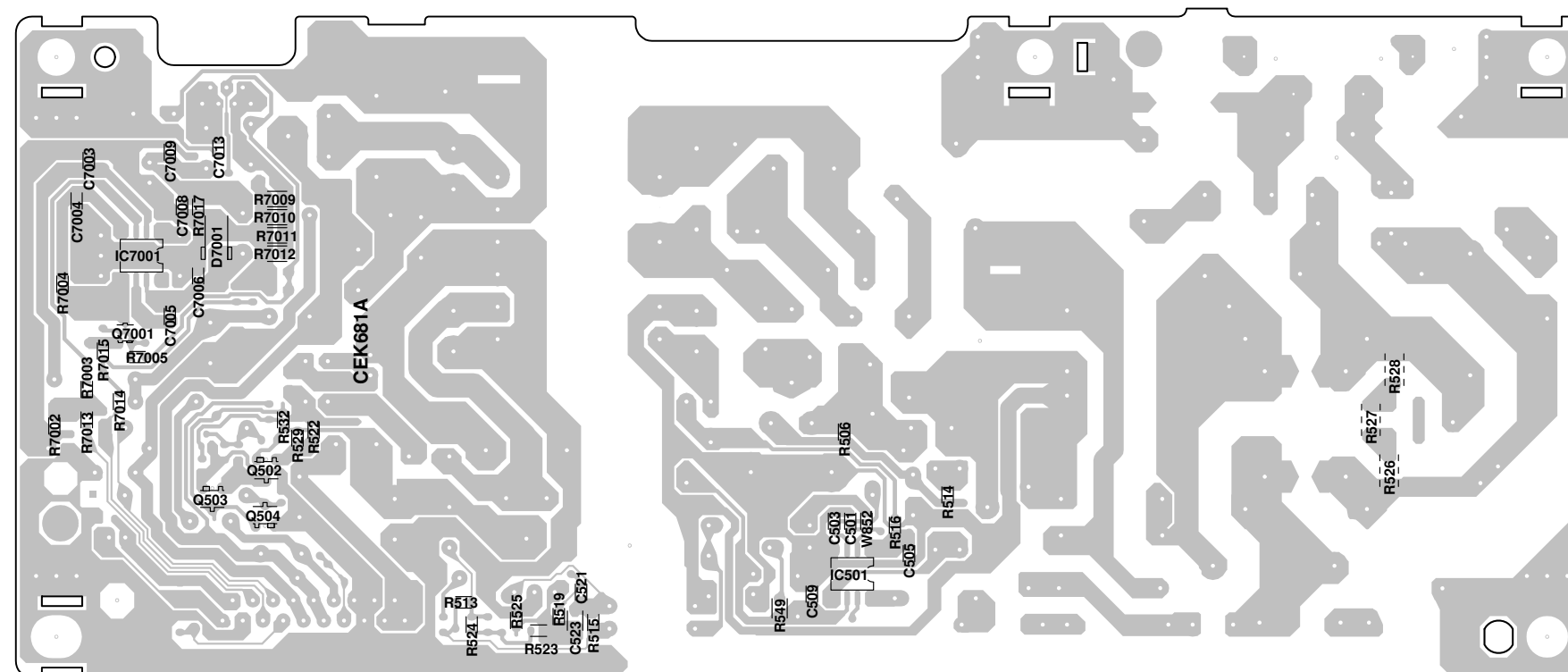
MAIN (BOTTOM SIDE)



**PRINTED CIRCUIT BOARDS
POWER (INSERTED PARTS)
SOLDER SIDE**

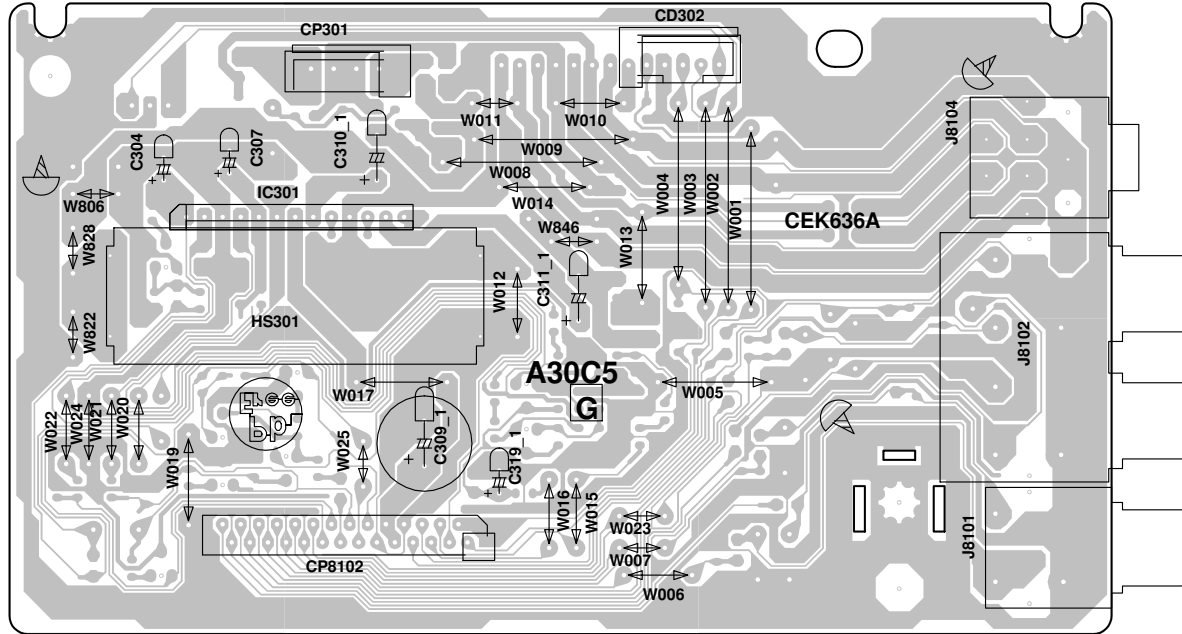


POWER (CHIP MOUNTED PARTS) SOLDER SIDE

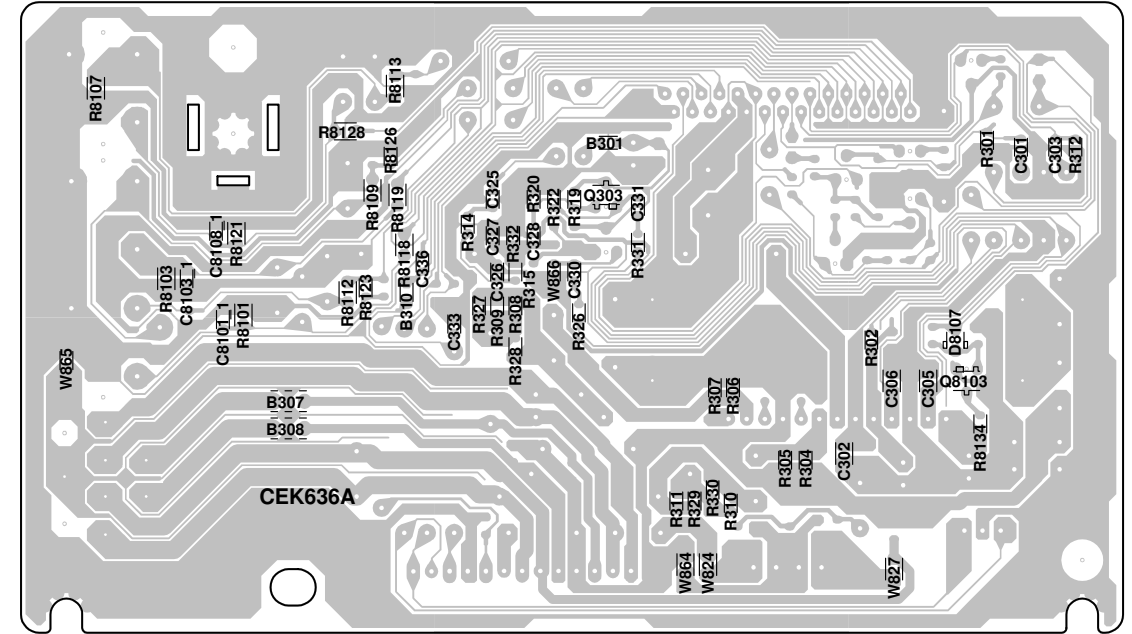


PRINTED CIRCUIT BOARDS

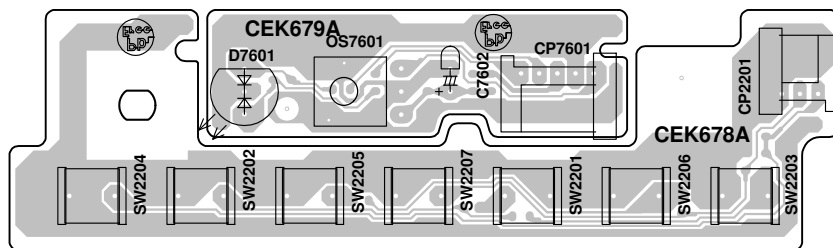
SIDE JACK (INSERTED PARTS) SOLDER SIDE



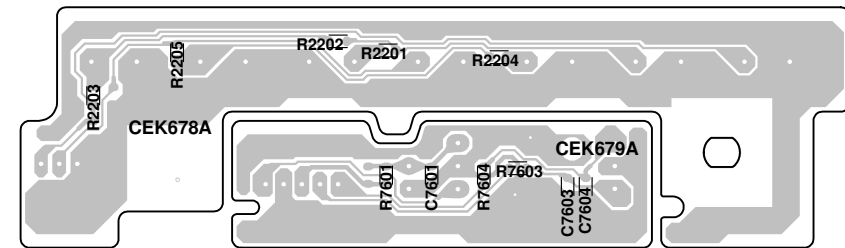
SIDE JACK (CHIP MOUNTED PARTS) SOLDER SIDE



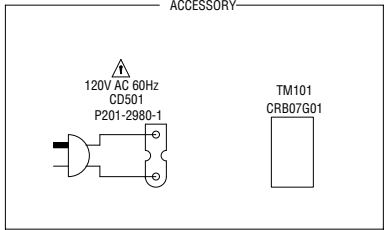
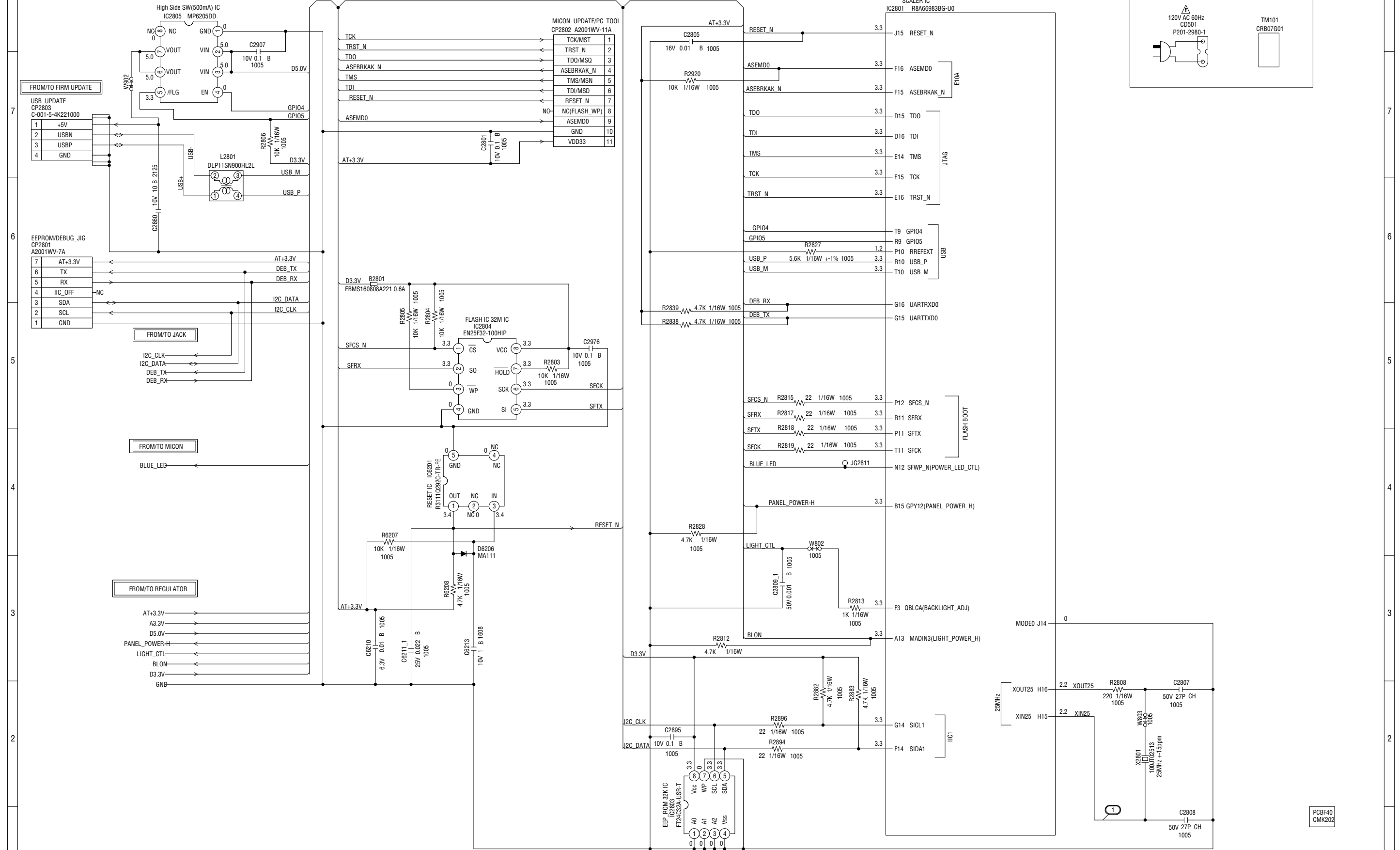
OPERATION/REMOCON (INSERTED PARTS)



OPERATION/REMOCON (CHIP MOUNTED PARTS)



FLASH SCHEMATIC DIAGRAM
(MAIN PCB)



CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

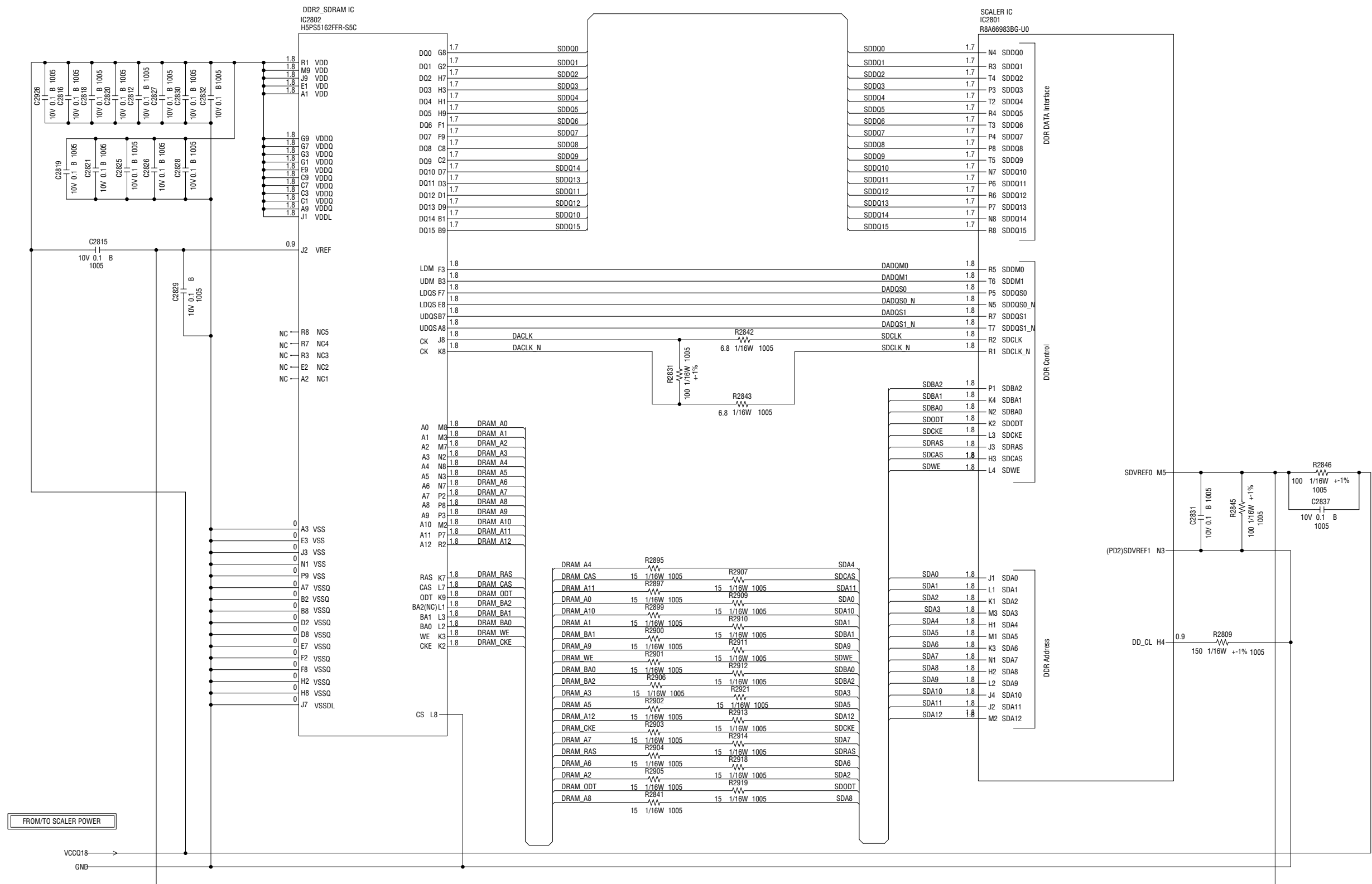
ATTENTION LES PIÉCES REPARÉES PAR UN ÉTANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIÉCES.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

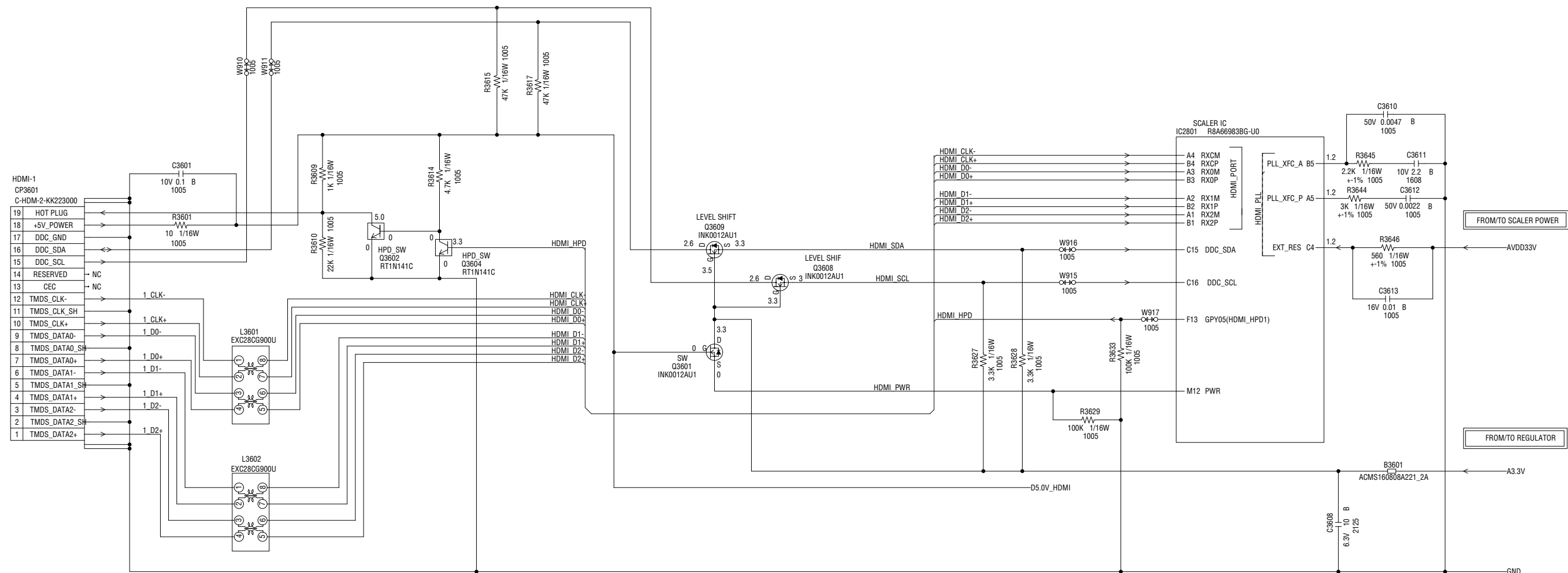
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCB40
CMK202

DDR2 SCHEMATIC DIAGRAM
(MAIN PCB)

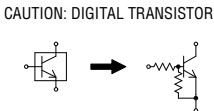


HDMI SCHEMATIC DIAGRAM
(MAIN PCB)



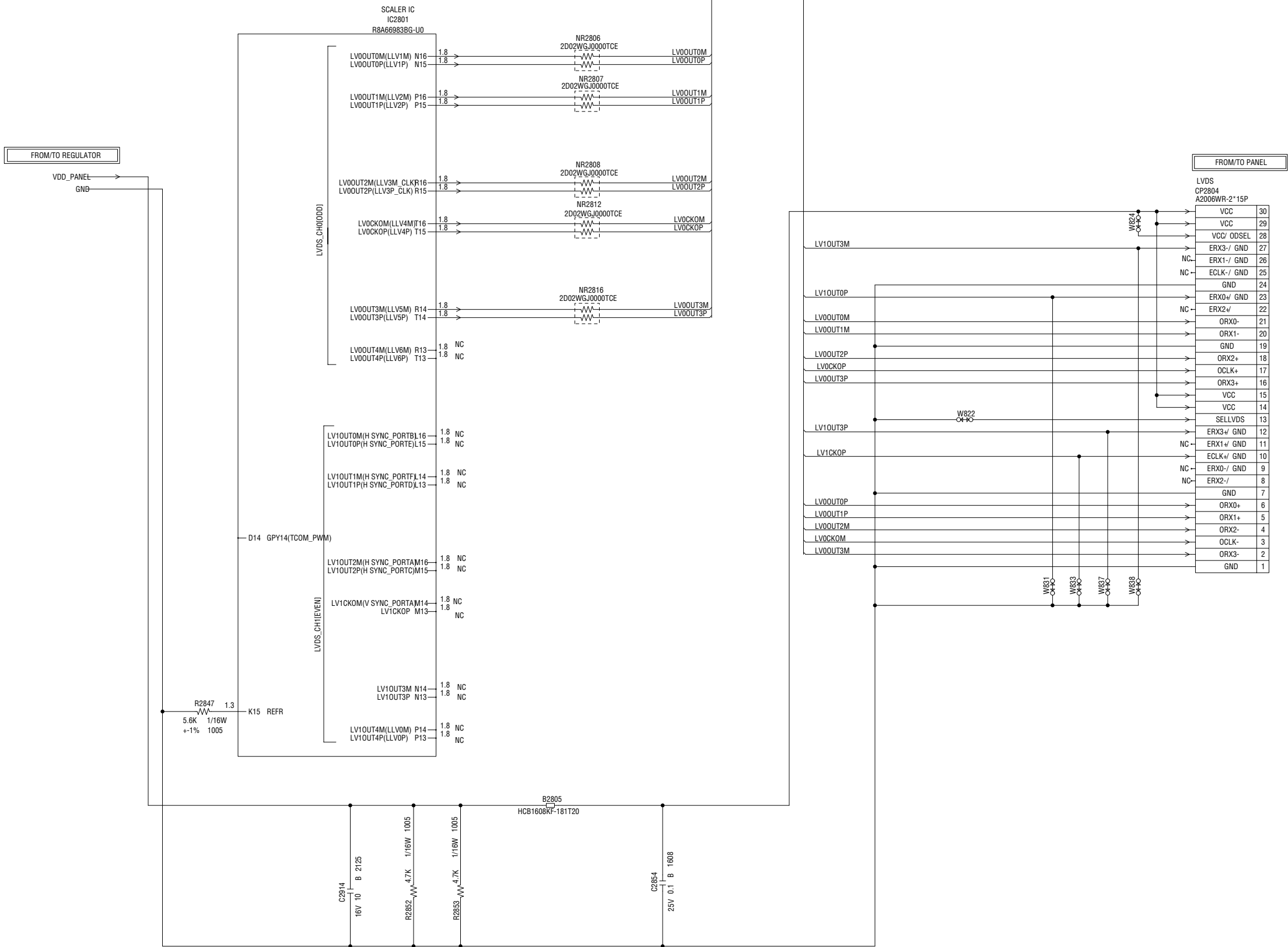
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.



PCBF40
CMK202

LVDS SCHEMATIC DIAGRAM
(MAIN PCB)



19WLED
CD2801
EH2U0501
V7201
M185B3-PA1-LED BR5
LCD PANEL

CAUTION: SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPAREES PAR UN ETANT DANGEREUSES AN POINT DE VUE SECURITE N'UTILISER QUE CELLS DECRITES DANS LA NOMENCLATURE DES PIECES.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

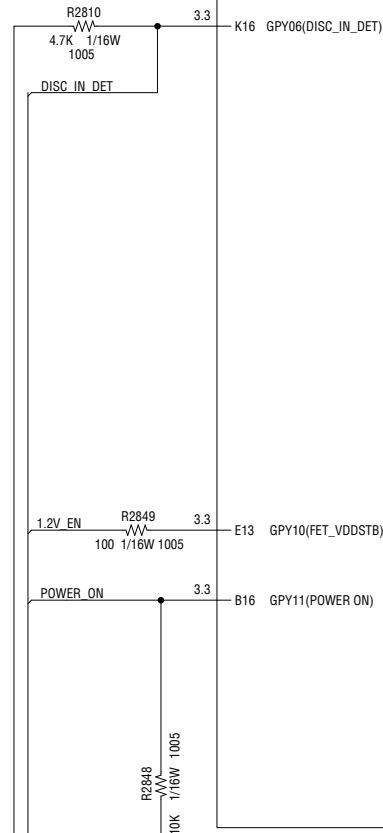
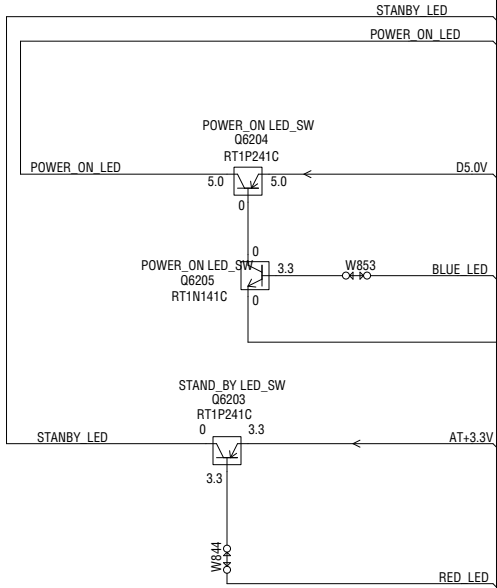
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

PCBF40
CMK202

MICON SCHEMATIC DIAGRAM
(MAIN PCB)

FROM/TO OPERATION/REMOCON

CD6204 (CP2201) CH233504	
3	KEY A
2	KEY B
1	GND



SCALER IC
IC2801
R8A66983BG-U0

QBLCB(SYSTEM_POWER_H)2

GPY13(RC_IN) C14

MADIN4(KEY_A) C13

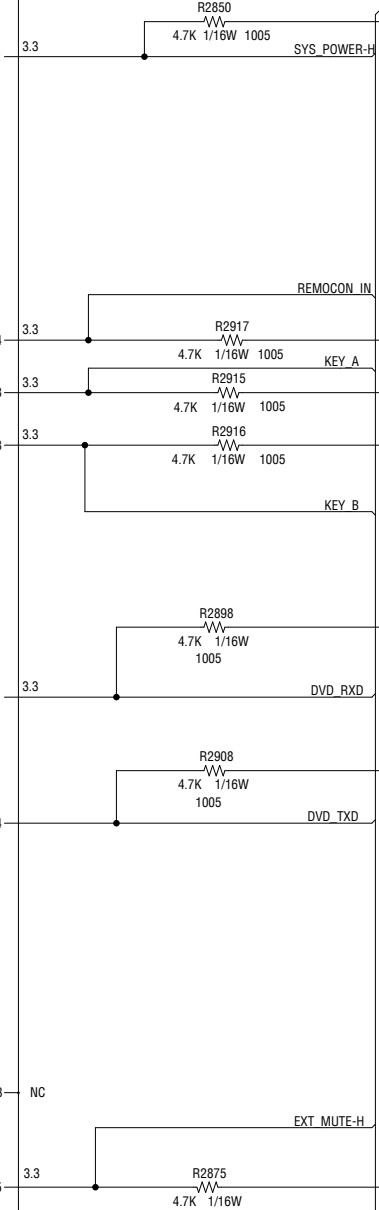
MADIN2(KEY_B) B13

GPY08(SCIRX) J16

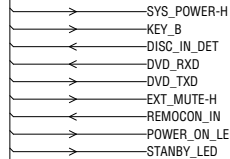
GPY07(SCITX) K14

MADIN0(DVD/BD_POWER_H)D13

MADIN1(EXT_MUTE) A15



FROM/TO JACK



FROM/TO SCALER VIDEO/AUDIO



FROM/TO SCALAER POWER



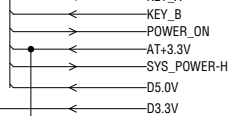
FROM/TO FLASH



FROM/TO TUNER



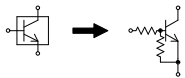
FROM/TO REGULATOR



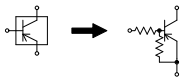
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR

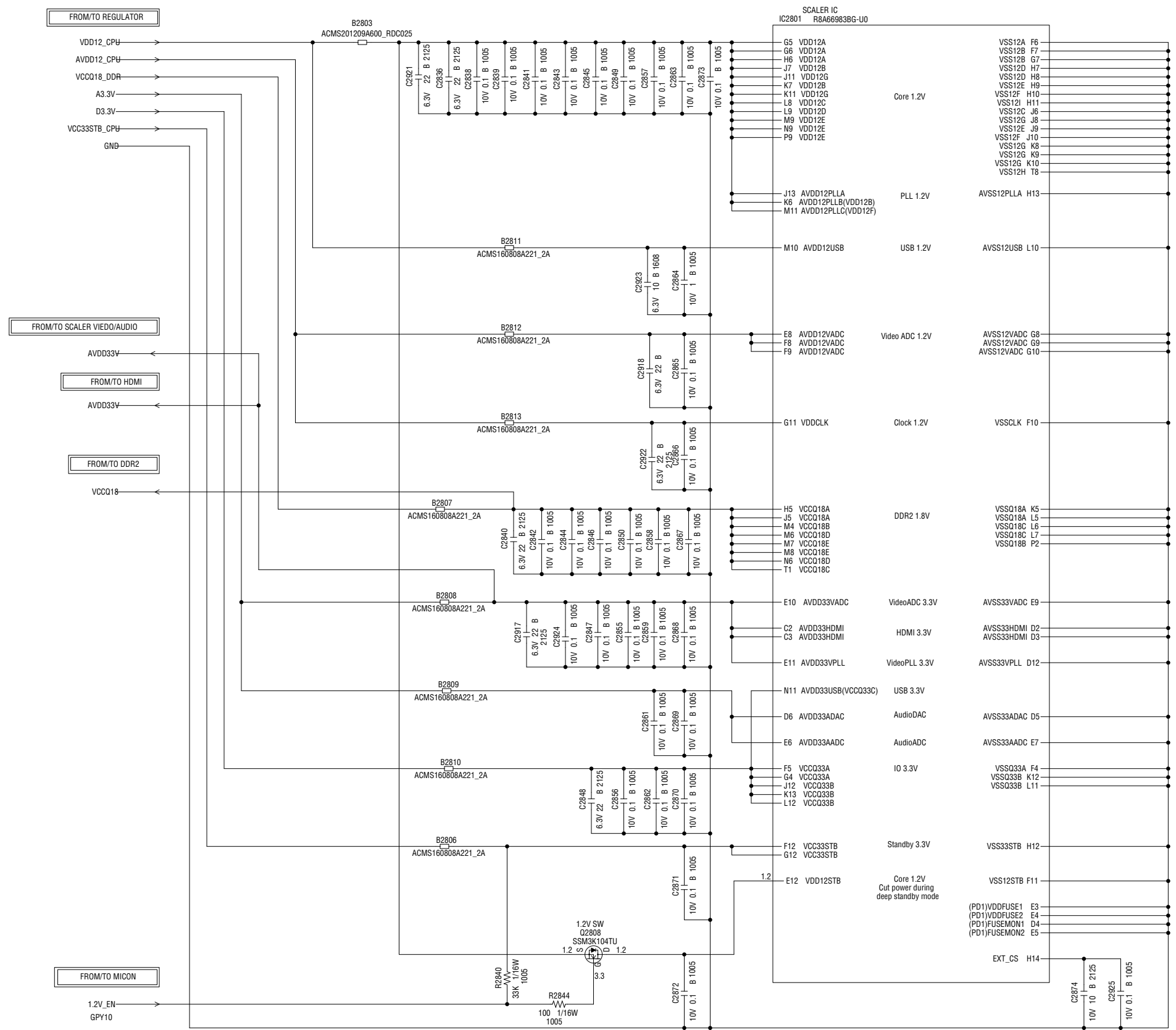


CAUTION: DIGITAL TRANSISTOR



PCBF40
CMK202

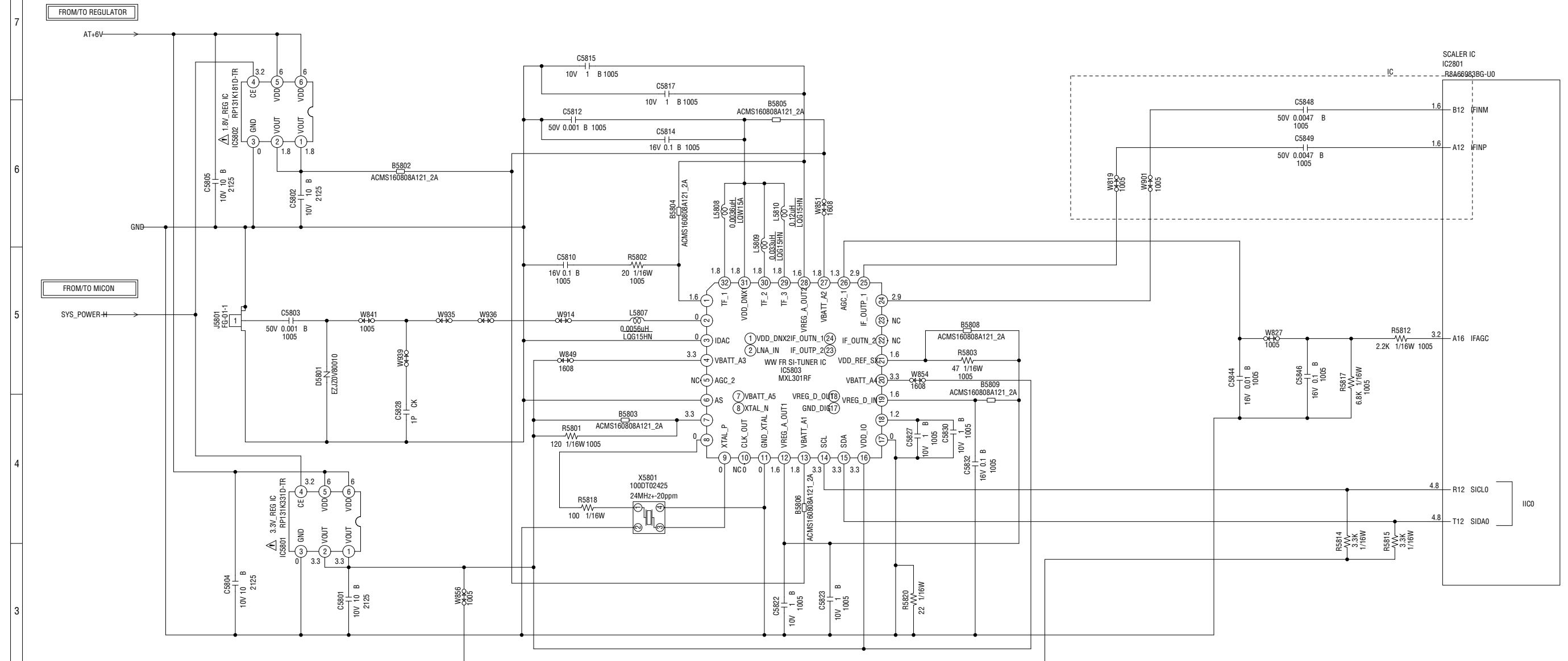
SCALER POWER SCHEMATIC DIAGRAM
(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

TUNER SCHEMATIC DIAGRAM (MAIN PCB)



CAUTION SINCE THESE PARTS MARKED BY ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY .

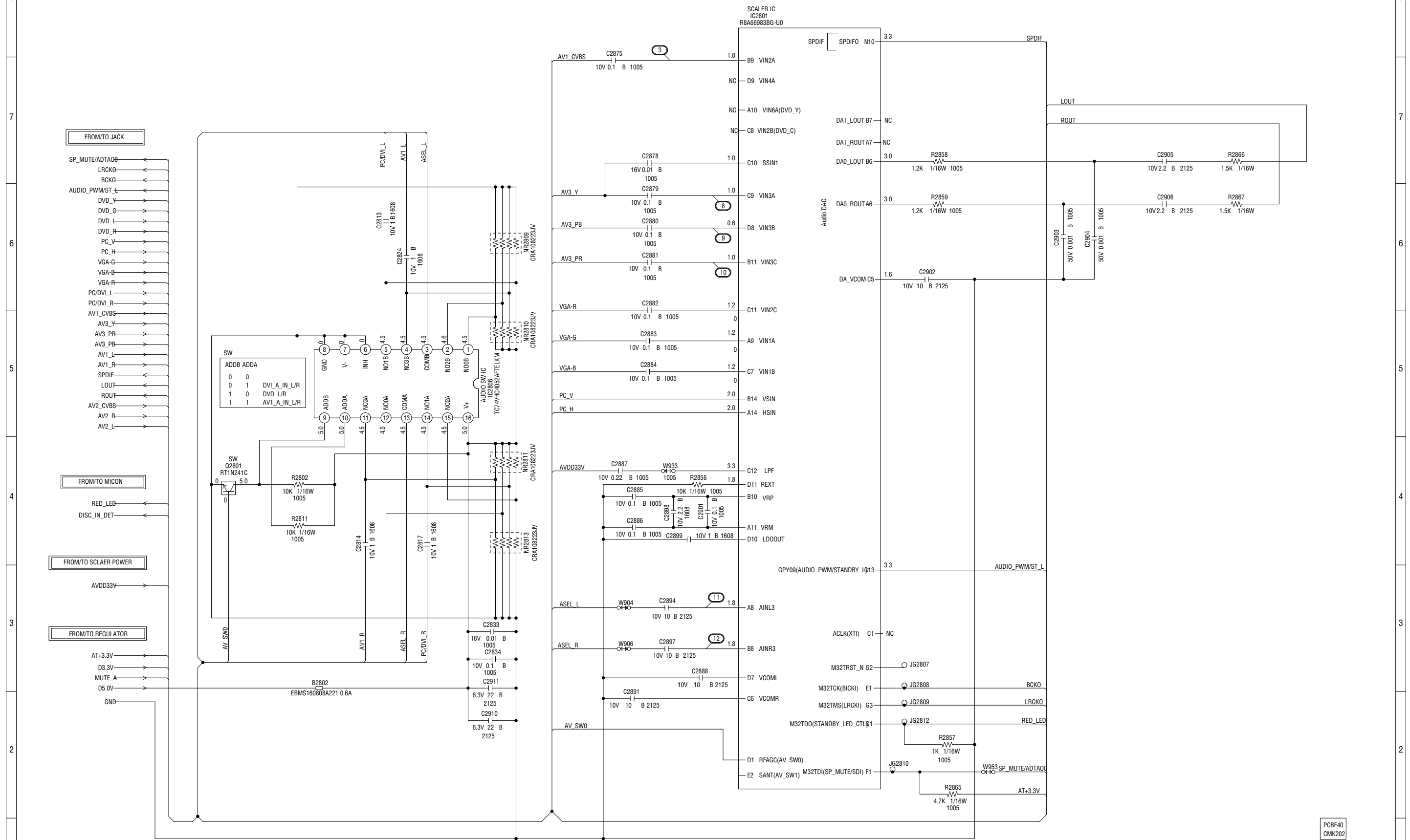
ATTENTION: LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCBF40
CMK202

SCALER VIDEO/AUDIO SCHEMATIC DIAGRAM
(MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

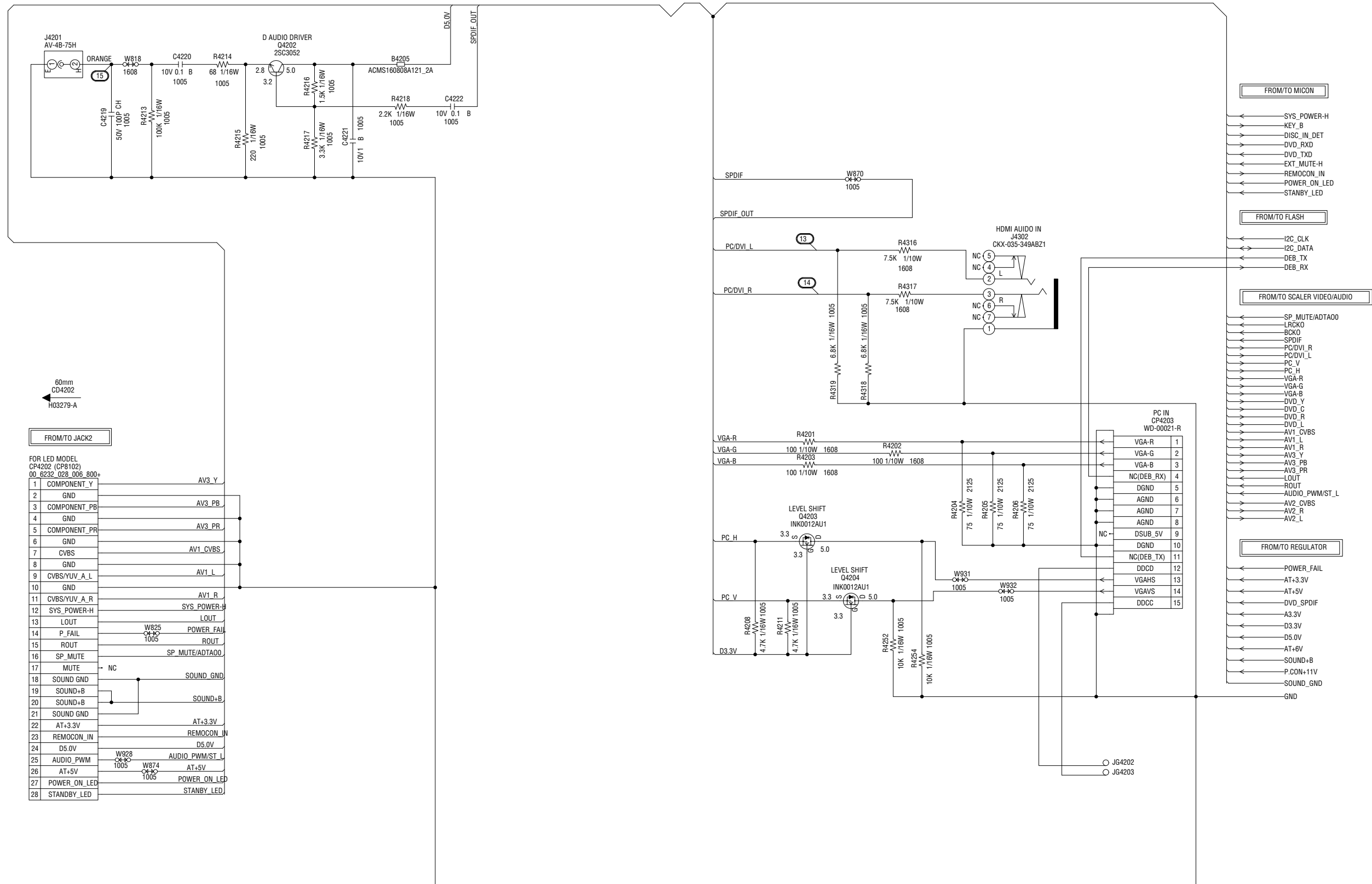
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



PCBF40
CMK202

JACK SCHEMATIC DIAGRAM (MAIN PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

REGULATOR SCHEMATIC DIAGRAM (MAIN PCB)

FROM/TO POWER

LOW INCH MODEL
CP3003 (CP501)
00_6216_016_000_808+

16	AT+5.8V
15	AT+5.8V
14	AT+5.8V
13	GND
12	GND
11	GND
10	AT 12V/GND
9	AT 12V
8	SOUND+B
7	SOUND+B
6	SOUND GND
5	SOUND GND
4	POWER_ON_H
3	POWER_FAIL
2	LIGHT_CTL
1	INVETER_H

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

SH3001 YQ-12

SH3002 YQ-12

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SH3001 YQ-12

SH3002 YQ-12

SH3003 YQ-12

SH3004 YQ-12

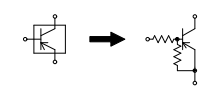
CAUTION: SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIECES REPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ, N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

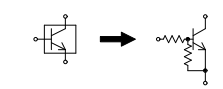
NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR



CAUTION: DIGITAL TRANSISTOR



FROM/TO FLASH

D3.3V
PANEL_POWER-H
D5.0V
BLON
LIGHT_CTL
AT+3.3V
A3.3V
GND

FROM/TO DDR2

GND

FROM/TO HDMI

A3.3V
GND

FROM/TO LVDS

VDD_PANEL
GND

FROM/TO MICON

KEY_A
KEY_B
D5.0V
SYS_POWER-H
AT+3.3V
D3.3V
POWER_ON
GND

FROM/TO SCALER POWER

AVDD12_CPU
VCC018_DDR
VDD12_CPU
D3.3V
A3.3V
VCC3STB_CPU
GND

FROM/TO TUNER

AT+6V
GND

FROM/TO SCALER VIDEO/AUDIO

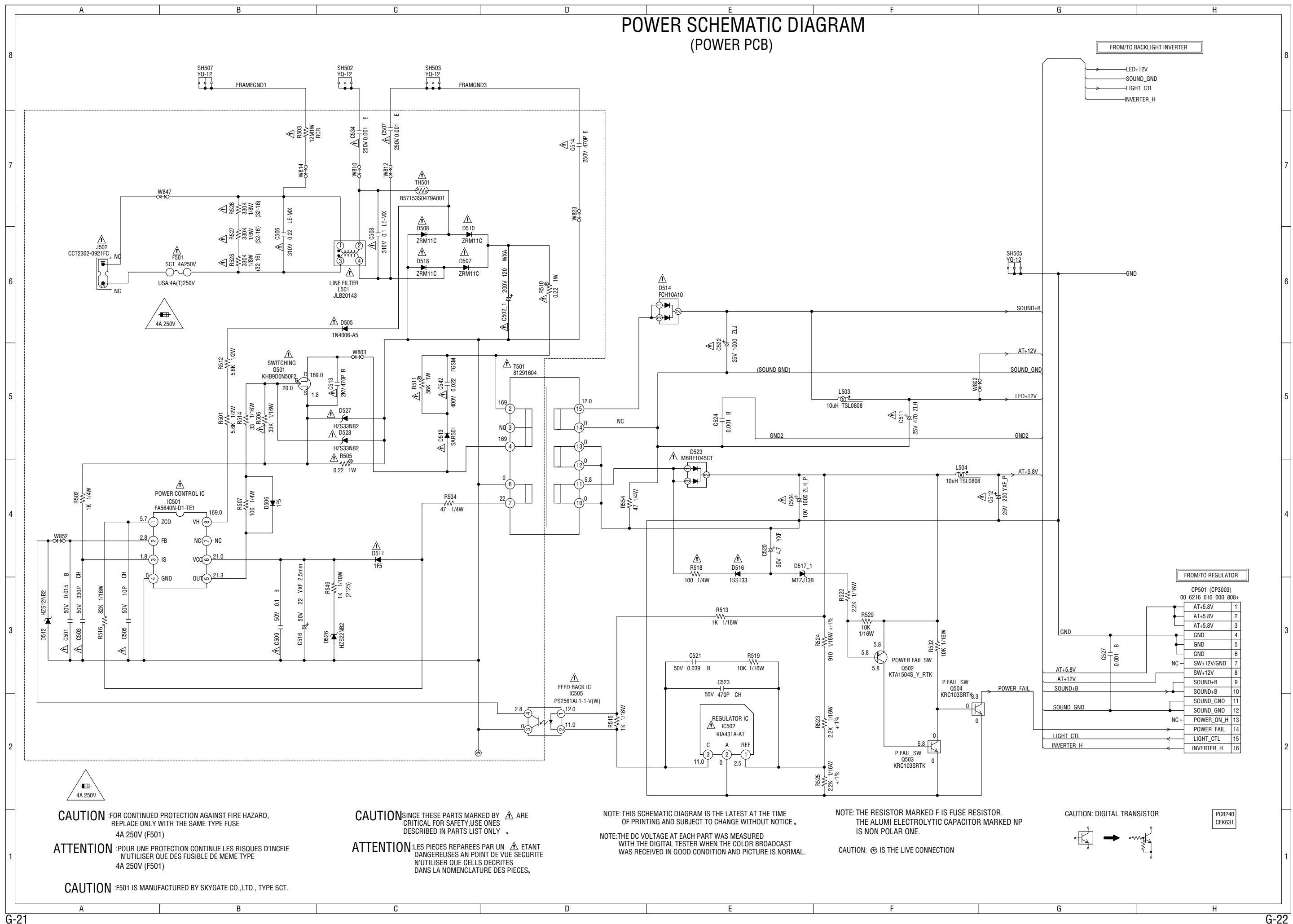
D3.3V
AT+3.3V
D5.0V
GND

FROM/TO JACK

POWER_FAIL
AT+3.3V
AT+5V
DVD_SPDIF
A3.3V
D3.3V
D5.0V
AT+6V
SOUND+B
P_CON+11V
SOUND_GND
GND

PCBF40
CMK202

POWER SCHEMATIC DIAGRAM (POWER PCB)



FROM/TO POWER

LED+12V

INVERTER_H

LIGHT_CTL

SOUND_GND

R7002 22K 1/16W

R7003 10 1/16W

R7004 10K 1/16W +1%

R7005 1K 1/16W +1%

R7009 1.5 1/4W +1%

R7010 1.5 1/4W +1%

R7011 1.5 1/4W +1%

R7012 1.5 1/4W +1%

R7014 1K 1/16W

R7015 100 1/16W

R7018 15 1/4W

C7003 25V 1 B

C7004 25V 1 B

C7005 25V 1 B

C7006 50V 100P CH

C7008 25V 1 B

C7009 25V 1 B

C7010 47K 1/16W

C7013 25V 47 ZLG

C7015 50V 0.001 B

LED DRIVER IC IC7001 O2523GN-A-0-TR

LED L7002 10uH PFT3

10V 900mA

60mA

840mA

W806

W813

CP7001 00_6232_007_006_800+

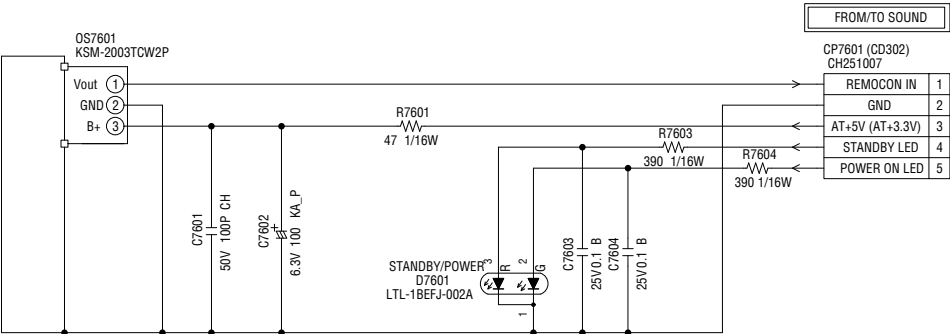
CP7001	00_6232_007_006_800+
VLED	7
VLED	6
VLED	5
ILED1	4
ILED2	3
ILED2	2
ILED2	1

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

PCB240
CEK631

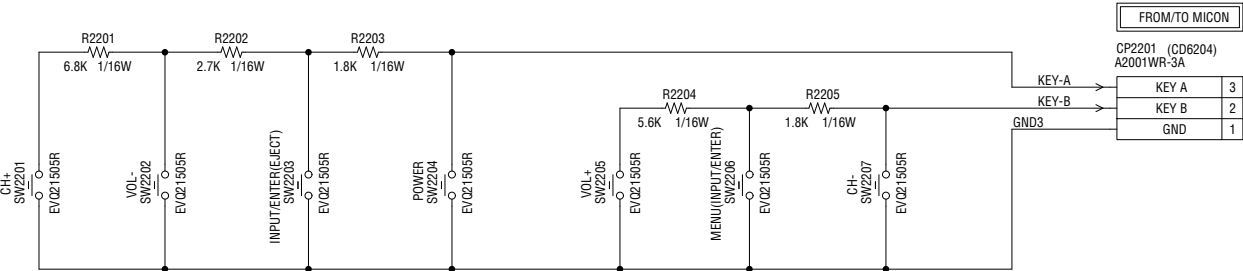
REMOCON/OPERATION SCHEMATIC DIAGRAM

(REMOCON PCB)



PCBDAQ
CEK679

(OPERATION PCB)

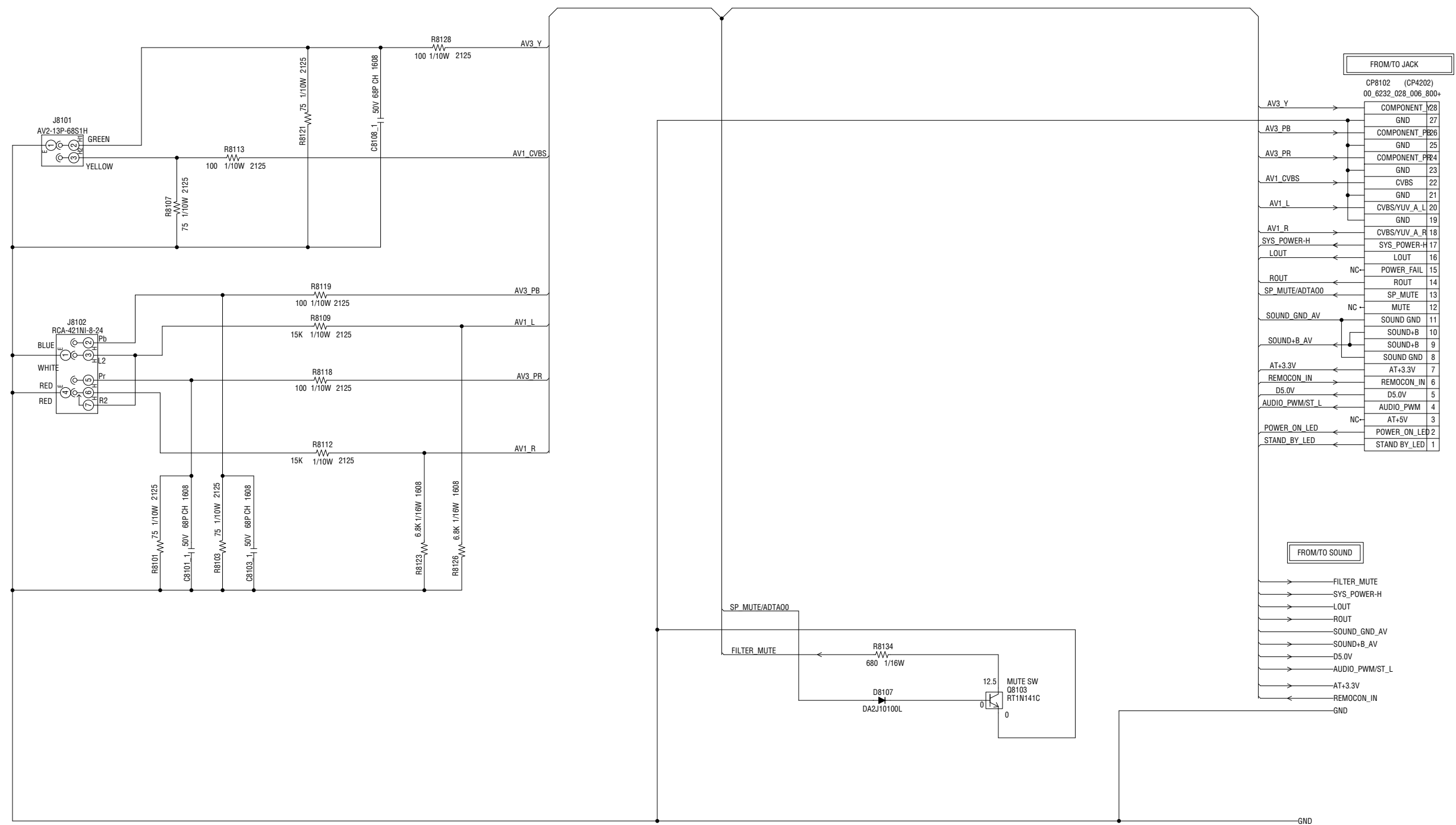


PCB270
CEK678

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

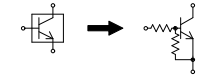
JACK2 SCHEMATIC DIAGRAM
(JACK PCB)



NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME
OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE .

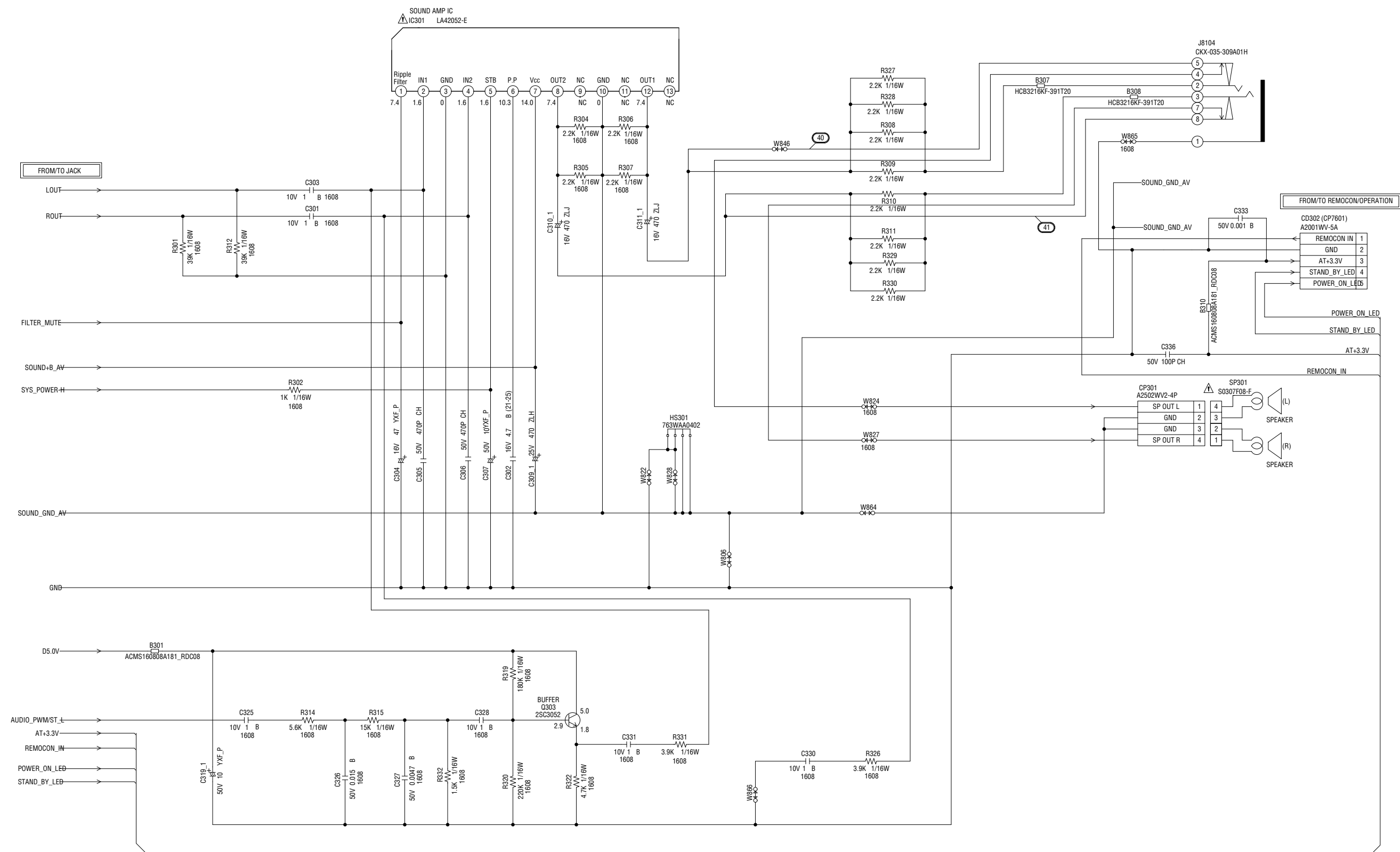
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED
WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST
WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

CAUTION: DIGITAL TRANSISTOR

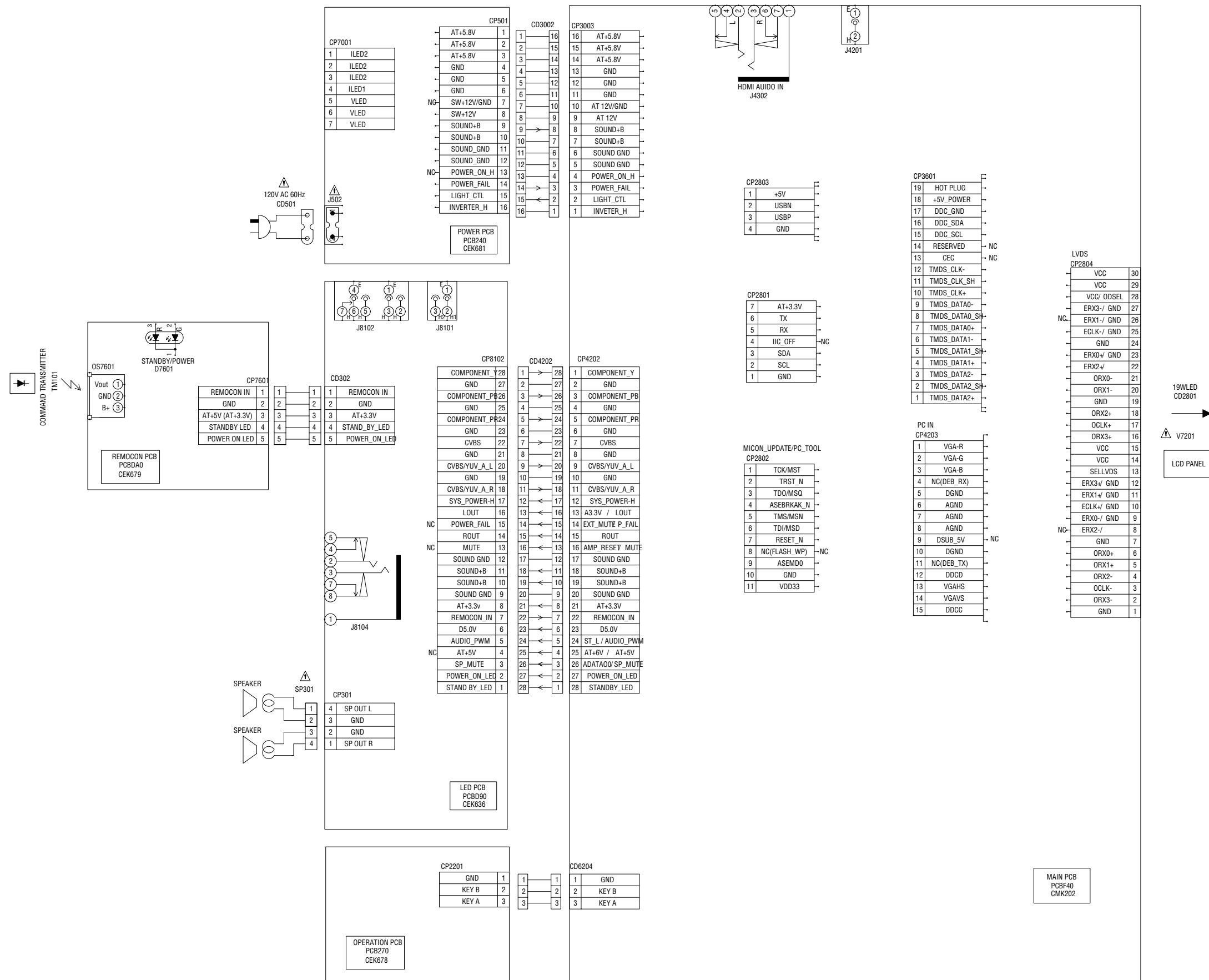


PCB090
CEK636

SOUND SCHEMATIC DIAGRAM
(JACK PCB)



INTERCONNECTION DIAGRAM



CAUTION SINCE THESE PARTS MARKED BY  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED IN PARTS LIST ONLY.

ATTENTION: LES PIÈCES RÉPARÉES PAR UN  ÉTANT DANGEREUSES AU POINT DE VUE SÉCURITÉ N'UTILISER QUE CELLES DÉCRITES DANS LA NOMENCLATURE DES PIÈCES.

NOTE: THIS SCHEMATIC DIAGRAM IS THE LATEST AT THE TIME OF PRINTING AND SUBJECT TO CHANGE WITHOUT NOTICE.

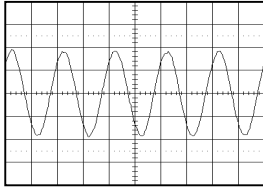
NOTE: THE DC VOLTAGE AT EACH PART WAS MEASURED WITH THE DIGITAL TESTER WHEN THE COLOR BROADCAST WAS RECEIVED IN GOOD CONDITION AND PICTURE IS NORMAL.

WAVEFORMS

FLASH

20ns
200mV

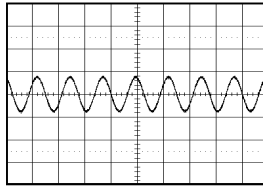
1



SCALER VIDEO/AUDIO

2ms
100mV

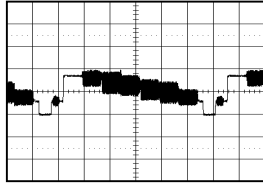
12



SCALER VIDEO/AUDIO

10us
0.5V

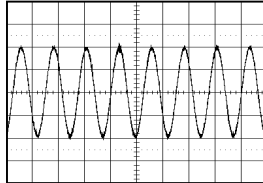
3



JACK

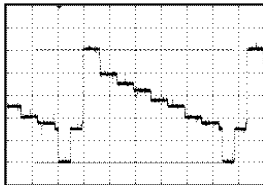
2ms
100mV

13



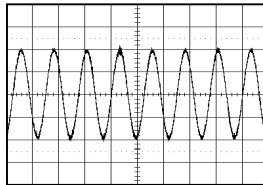
10us
200mV

8



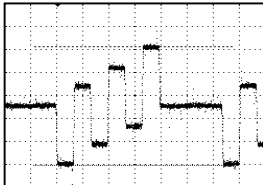
2ms
100mV

14



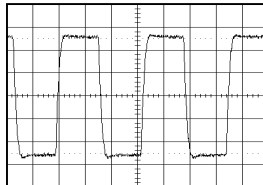
10us
100mV

9



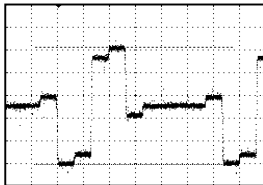
0.2us
200mV

15



10us
100mV

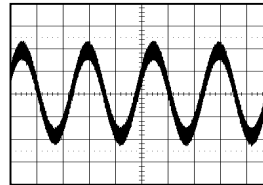
10



SOUND

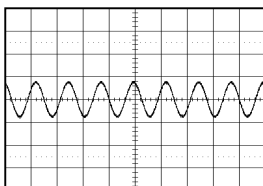
1ms
200mV

40



2ms
100mV

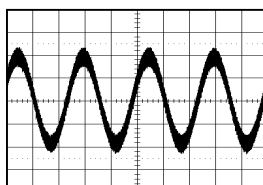
11



SOUND

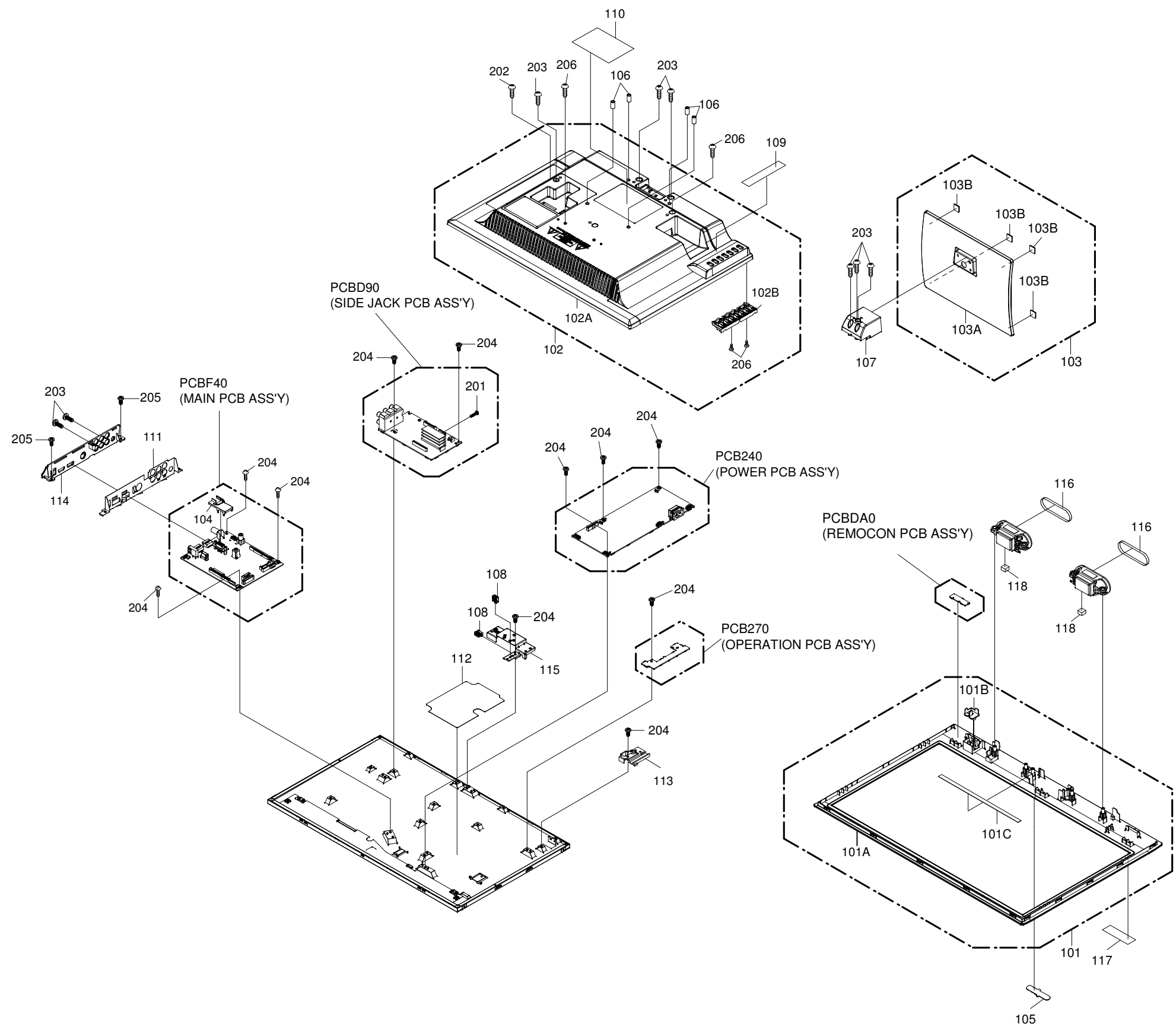
1ms
200mV

41

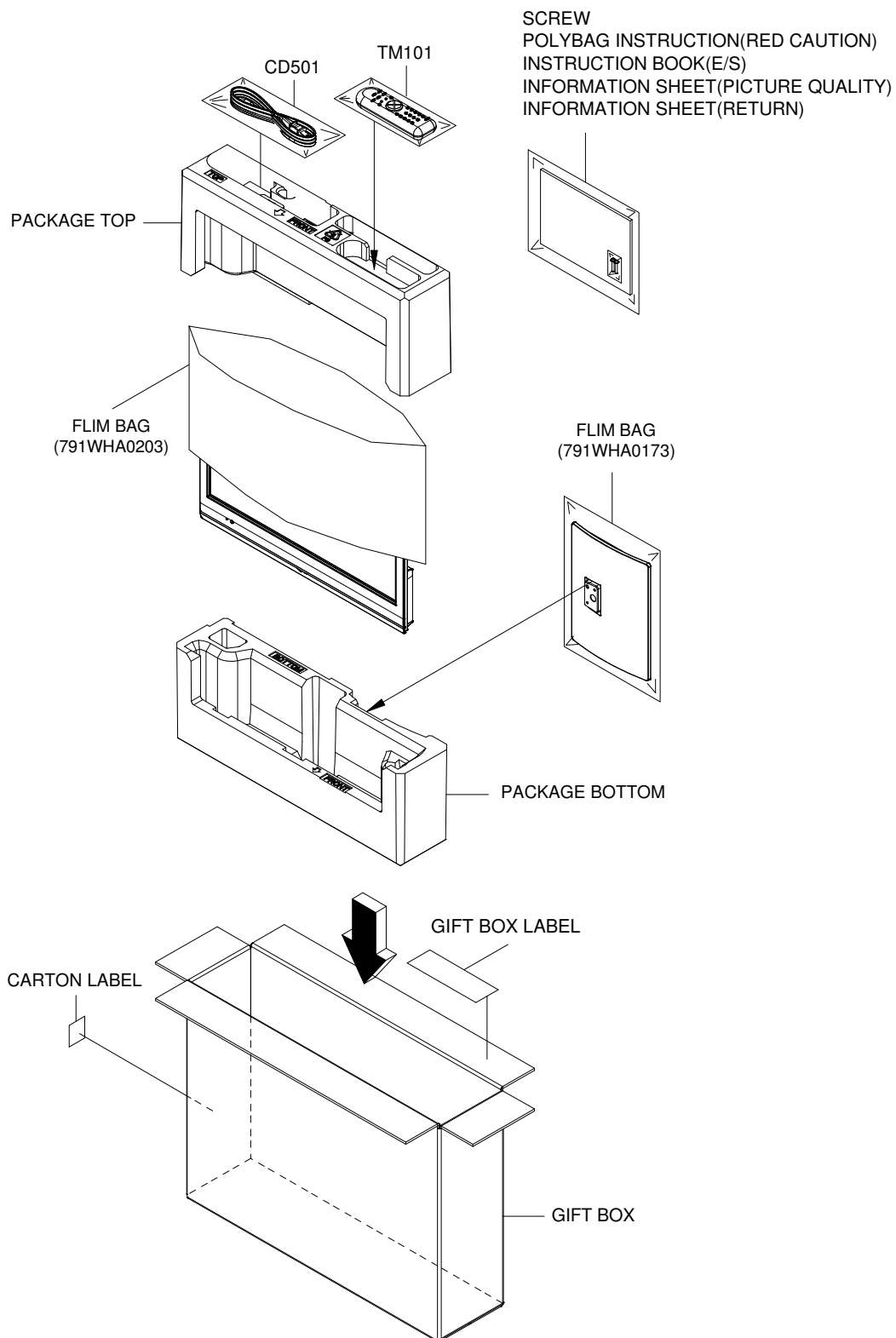


NOTE: The following waveforms were measured at the point of the corresponding balloon number in the schematic diagram.

MECHANICAL EXPLODED VIEW



MECHANICAL EXPLODED VIEW (PACKING DIAGRAM)



MECHANICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
101	7A708A593A	FRONT CABI ASS'Y	or
	7A708A639A	FRONT CABI ASS'Y	
101A	708WPA0066	CABINET FRONT	
101B	713WPAA313	GUIDE REMOCON	
101C	800WQ0A312	FELT SHEET	
102	7A702B330A	BACK CABI ASS'Y	
102A	702WPA1580	CABINET BACK	
102B	735WPAB233	BUTTON FRAME	
103	7A704A305A	STAND ASS'Y	
103A	704WPAA193	STAND	
103B	800SRA0002	CUSHION LEG VEB1349-A	
104	752WSAA202	SHIELD TUNER	
105	723529A003	BADGE BRAND	1AV2BAAS023
106	769WSA0022	VESA SHAFT	
107	704WPAA194	STAND FRAME	
108	709WPA0051	HOLDER WIRE	
109	721000A014	SHEET BUTTON	
110	722529A028	SHEET RATING	
111	752WSAA205	SHIELD JACK	
112	759WNAA022	SHEET PC	
113	761WPA0657	HOLDER PCB	
114	761WPAA330	PLATE JACK	
115	761WSA0891	ANGLE HINGE	
116	800WF0A032	CUSHION SPEAKER	
117	723000E896	ENERGY GUIDE LABEL	
118	800WFA0137	CUSHION	
201	8109I30A0U	SCREW TAP TITE(B) WH7	3x10
202	8107K2660U	SCREW TAP TITE(S) LAMI HEAD	2.6x6
203	8109230A0U	SCREW TAP TITE(B) BIND	3x10
204	810722660U	SCREW TAP TITE(S) BIND	2.6x6
205	810722680U	SCREW,TAP TITE(S) BIND	M2.6x8
206	810923080U	SCREW TAP TITE(B) BIND	3x8
---	723000E836	CARTON LABEL	
---	723000E837	GIFT BOX LABEL	
---	791WHA0173	FILM BAG	
---	791WHA0203	FILM BAG	
---	792WHAA450	PACKAGE TOP	
---	792WHAA451	PACKAGE BOTTOM	
---	793WCDE547	GIFT BOX	
---	8905000013	SCREW	
---	J37I0529A	INFORMATION SHEET(RETURN)	
---	J3FR0321A	INSTRUCTION BOOK(E/S)	
---	J3FR0359A	INFORMATION SHEET(PICTURE QUALITY)	
---	JA5KD001	POLYBAG INSTRUCTION(RED CAUTION)	

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
RESISTORS			RESISTORS		
R301	R803R9393J	RC 39K OHM 1/16W	R2842	R808R96R8J	RC 6.8 OHM 1/16W
R302	R803R9102J	RC 1K OHM 1/16W	R2843	R808R96R8J	RC 6.8 OHM 1/16W
R304	R803R9222J	RC 2.2K OHM 1/16W	R2844	R808R9101J	RC 100 OHM 1/16W
R305	R803R9222J	RC 2.2K OHM 1/16W	R2845	R808R9101F	RC 100 OHM 1/16W
R306	R803R9222J	RC 2.2K OHM 1/16W	R2846	R808R9101F	RC 100 OHM 1/16W
R307	R803R9222J	RC 2.2K OHM 1/16W	R2847	R808R9562F	RC 5.6K OHM 1/16W
R308	R803R9222J	RC 2.2K OHM 1/16W	R2848	R808R9103J	RC 10K OHM 1/16W
R309	R803R9222J	RC 2.2K OHM 1/16W	R2849	R808R9101J	RC 100 OHM 1/16W
R310	R803R9222J	RC 2.2K OHM 1/16W	R2850	R808R9472J	RC 4.7K OHM 1/16W
R311	R803R9222J	RC 2.2K OHM 1/16W	R2852	R808R9472J	RC 4.7K OHM 1/16W
R312	R803R9393J	RC 39K OHM 1/16W	R2853	R808R9472J	RC 4.7K OHM 1/16W
R314	R803R9562J	RC 5.6K OHM 1/16W	R2856	R808R9103J	RC 10K OHM 1/16W
R315	R803R9153J	RC 15K OHM 1/16W	R2857	R808R9102J	RC 1K OHM 1/16W
R319	R803R9184J	RC 180K OHM 1/16W	R2858	R808R9122J	RC 1.2K OHM 1/16W
R320	R803R9224J	RC 220K OHM 1/16W	R2859	R808R9122J	RC 1.2K OHM 1/16W
R322	R803R9472J	RC 4.7K OHM 1/16W	R2865	R808R9472J	RC 4.7K OHM 1/16W
R326	R803R9392J	RC 3.9K OHM 1/16W	R2866	R808R9152J	RC 1.5K OHM 1/16W
R327	R803R9222J	RC 2.2K OHM 1/16W	R2867	R808R9152J	RC 1.5K OHM 1/16W
R328	R803R9222J	RC 2.2K OHM 1/16W	R2875	R808R9472J	RC 4.7K OHM 1/16W
R329	R803R9222J	RC 2.2K OHM 1/16W	R2882	R808R9472J	RC 4.7K OHM 1/16W
R330	R803R9222J	RC 2.2K OHM 1/16W	R2883	R808R9472J	RC 4.7K OHM 1/16W
R331	R803R9392J	RC 3.9K OHM 1/16W	R2894	R808R9220J	RC 22 OHM 1/16W
R332	R803R9152J	RC 1.5K OHM 1/16W	R2895	R808R9150J	RC 15 OHM 1/16W
R501	R002T2562J	RC 5.6K OHM 1/2W	R2896	R808R9220J	RC 22 OHM 1/16W
R502	R002T4102J	RC 1K OHM 1/4W	R2897	R808R9150J	RC 15 OHM 1/16W
△ R503	RC31X1126J	RC 12M OHM 1W	R2898	R808R9472J	RC 4.7K OHM 1/16W
△ R505	R3K781R22J	R,METAL OXIDE 0.22 OHM 1W	R2899	R808R9150J	RC 15 OHM 1/16W
△ R506	R803R9333J	RC 33K OHM 1/16W	R2900	R808R9150J	RC 15 OHM 1/16W
R507	R002T4101J	RC 100 OHM 1/4W	R2901	R808R9150J	RC 15 OHM 1/16W
△ R510	R63881R22J	R,FUSE 0.22 OHM 1W	R2902	R808R9150J	RC 15 OHM 1/16W
△ R511	R3K781563J	R,METAL OXIDE 56K OHM 1W	R2903	R808R9150J	RC 15 OHM 1/16W
R512	R002T2562J	RC 5.6K OHM 1/2W	R2904	R808R9150J	RC 15 OHM 1/16W
R513	R803R9102J	RC 1K OHM 1/16W	R2905	R808R9150J	RC 15 OHM 1/16W
R514	R803R9330J	RC 33 OHM 1/16W	R2906	R808R9150J	RC 15 OHM 1/16W
R515	R803R9102J	RC 1K OHM 1/16W	R2907	R808R9150J	RC 15 OHM 1/16W
R516	R803R9104J	RC 100K OHM 1/16W	R2908	R808R9472J	RC 4.7K OHM 1/16W
△ R518	R002T4101J	RC 100 OHM 1/4W	R2909	R808R9150J	RC 15 OHM 1/16W
R519	R803R9103J	RC 10K OHM 1/16W	R2910	R808R9150J	RC 15 OHM 1/16W
R522	R803R9222J	RC 2.2K OHM 1/16W	R2911	R808R9150J	RC 15 OHM 1/16W
R523	R803R9222F	RC 2.2K OHM 1/16W	R2912	R808R9150J	RC 15 OHM 1/16W
R524	R803R9911F	RC 910 OHM 1/16W	R2913	R808R9150J	RC 15 OHM 1/16W
R525	R803R9222F	RC 2.2K OHM 1/16W	R2914	R808R9150J	RC 15 OHM 1/16W
△ R526	R8X2R8334J	RC 330K OHM 1/8W	R2915	R808R9472J	RC 4.7K OHM 1/16W
△ R527	R8X2R8334J	RC 330K OHM 1/8W	R2916	R808R9472J	RC 4.7K OHM 1/16W
△ R528	R8X2R8334J	RC 330K OHM 1/8W	R2917	R808R9472J	RC 4.7K OHM 1/16W
R529	R803R9103J	RC 10K OHM 1/16W	R2918	R808R9150J	RC 15 OHM 1/16W
R532	R803R9103J	RC 10K OHM 1/16W	R2919	R808R9150J	RC 15 OHM 1/16W
R534	R002T4470J	RC 47 OHM 1/4W	R2920	R808R9103J	RC 10K OHM 1/16W
R549	R801R7102J	RC 1K OHM 1/10W	R2921	R808R9150J	RC 15 OHM 1/16W
R554	R002T4470J	RC 47 OHM 1/4W	R3002	R808R9103J	RC 10K OHM 1/16W
R2201	R803R9682J	RC 6.8K OHM 1/16W	R3004	R808R9103J	RC 10K OHM 1/16W
R2202	R803R9272J	RC 2.7K OHM 1/16W	R3005	R808R9223J	RC 22K OHM 1/16W
R2203	R803R9182J	RC 1.8K OHM 1/16W	R3006	R808R9474J	RC 470K OHM 1/16W
R2204	R803R9562J	RC 5.6K OHM 1/16W	R3008	R808R9103J	RC 10K OHM 1/16W
R2205	R803R9182J	RC 1.8K OHM 1/16W	R3010	R808R9753F	RC 75K OHM 1/16W
R2802	R808R9103J	RC 10K OHM 1/16W	R3012	R808R9472J	RC 4.7K OHM 1/16W
R2803	R808R9103J	RC 10K OHM 1/16W	R3013	R808R9103J	RC 10K OHM 1/16W
R2804	R808R9103J	RC 10K OHM 1/16W	R3016	R808R9103J	RC 10K OHM 1/16W
R2805	R808R9103J	RC 10K OHM 1/16W	R3017	R808R9822J	RC 8.2K OHM 1/16W
R2806	R808R9103J	RC 10K OHM 1/16W	R3018	R808R9562F	RC 5.6K OHM 1/16W
R2808	R808R9221J	RC 220 OHM 1/16W	R3019	R808R9332F	RC 3.3K OHM 1/16W
R2809	R808R9151F	RC 150 OHM 1/16W	R3020	R808R9102F	RC 1K OHM 1/16W
R2810	R808R9472J	RC 4.7K OHM 1/16W	R3021	R808R9243F	RC 24K OHM 1/16W
R2811	R808R9103J	RC 10K OHM 1/16W	R3022	R808R9822J	RC 8.2K OHM 1/16W
R2812	R808R9472J	RC 4.7K OHM 1/16W	R3026	R808R9123F	RC 12K OHM 1/16W
R2813	R808R9102J	RC 1K OHM 1/16W	R3027	R808R9243F	RC 24K OHM 1/16W
R2815	R808R9220J	RC 22 OHM 1/16W	R3028	R83KR4101J	RC 100 OHM 1/4W
R2817	R808R9220J	RC 22 OHM 1/16W	R3029	R808R9103J	RC 10K OHM 1/16W
R2818	R808R9220J	RC 22 OHM 1/16W	R3032	R808R9103J	RC 10K OHM 1/16W
R2819	R808R9220J	RC 22 OHM 1/16W	R3072	R808R9153J	RC 15K OHM 1/16W
R2827	R808R9562F	RC 5.6K OHM 1/16W	R3601	R808R9100J	RC 10 OHM 1/16W
R2828	R808R9472J	RC 4.7K OHM 1/16W	R3609	R808R9102J	RC 1K OHM 1/16W
R2831	R808R9101F	RC 100 OHM 1/16W	R3610	R808R9223J	RC 22K OHM 1/16W
R2838	R808R9472J	RC 4.7K OHM 1/16W	R3614	R808R9472J	RC 4.7K OHM 1/16W
R2839	R808R9472J	RC 4.7K OHM 1/16W	R3615	R808R9473J	RC 47K OHM 1/16W
R2840	R808R9333J	RC 33K OHM 1/16W	R3617	R808R9473J	RC 47K OHM 1/16W
R2841	R808R9150J	RC 15 OHM 1/16W	R3627	R808R9332J	RC 3.3K OHM 1/16W

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
RESISTORS				CAPACITORS			
R3628	R808R9332J	RC	3.3K OHM 1/16W	C319	E8E2U5100D	CE	10 UF 50V
R3629	R808R9104J	RC	100K OHM 1/16W	C325	CS0PB0N16K	CC	1 UF 10V B
R3633	R808R9104J	RC	100K OHM 1/16W	C326	CS0PB04E4K	CC	0.015 UF 50V B
R3644	R808R9302F	RC	3K OHM 1/16W	C327	CS0PB04Q3K	CC	0.0047UF 50V B
R3645	R808R9222F	RC	2.2K OHM 1/16W	C328	CS0PB0N16K	CC	1 UF 10V B
R3646	R808R9561F	RC	560 OHM 1/16W	C330	CS0PB0N16K	CC	1 UF 10V B
R4201	R803R7101J	RC	100 OHM 1/10W	C331	CS0PB0N16K	CC	1 UF 10V B
R4202	R803R7101J	RC	100 OHM 1/10W	C333	CS0PB0413K	CC	0.001 UF 50V B
R4203	R803R7101J	RC	100 OHM 1/10W	C336	CS0PCH412J	CC	100 PF 50V CH
R4204	R801R7750J	RC	75 OHM 1/10W	△ C501	CS0PB04E4K	CC	0.015 UF 50V B
R4205	R801R7750J	RC	75 OHM 1/10W	△ C502	E5EWFC121D	CE	120 UF 200V
R4206	R801R7750J	RC	75 OHM 1/10W	△ C503	CS0PCH4L2J	CC	330 PF 50V CH
R4208	R808R9472J	RC	4.7K OHM 1/16W	△ C504	E8E101102M	CE	1000 UF 10V
R4211	R808R9472J	RC	4.7K OHM 1/16W	△ C505	CS0PCH411D	CC	10 PF 50V CH
R4213	R808R9104J	RC	100K OHM 1/16W	△ C506	P4K12D224K	CMPP	0.22 UF 310V
R4214	R808R9680J	RC	68 OHM 1/16W	△ C507	CE39E0M13M	CC	0.001 UF 250V E
R4215	R808R9221J	RC	220 OHM 1/16W	△ C508	P4K12D104K	CMPP	0.1 UF 310V
R4216	R808R9152J	RC	1.5K OHM 1/16W	△ C509	CS0PB0415K	CC	0.1 UF 50V B
R4217	R808R9332J	RC	3.3K OHM 1/16W	△ C511	E8E1T3471M	CE	470 UF 25V
R4218	R808R9222J	RC	2.2K OHM 1/16W	△ C512	E8E2T3221D	CE	220 UF 25V
R4252	R808R9103J	RC	10K OHM 1/16W	△ C513	C03L0R7Q2K	CC	470 PF 2KV R
R4254	R808R9103J	RC	10K OHM 1/16W	△ C514	CE39E0MQ2K	CC	470 PF 250V E
R4316	R803R7752J	RC	7.5K OHM 1/10W	C516	E8E2U5220D	CE	22 UF 50V
R4317	R803R7752J	RC	7.5K OHM 1/10W	C520	E8E2U54R7D	CE	4.7 UF 50V
R4318	R808R9682J	RC	6.8K OHM 1/16W	C521	CS0PB04N4K	CC	0.039 UF 50V B
R4319	R808R9682J	RC	6.8K OHM 1/16W	△ C522	E9E8F3102D	CE	1000 UF 25V
R5801	R808R9121J	RC	120 OHM 1/16W	C523	CS0PCH4Q2J	CC	470 PF 50V CH
R5802	R808R9200J	RC	20 OHM 1/16W	C524	CRGTB0413K	CC	0.001 UF 50V B
R5803	R808R9470J	RC	47 OHM 1/16W	C527	CRGTB0413K	CC	0.001 UF 50V B
R5812	R808R9222J	RC	2.2K OHM 1/16W	△ C534	CE39E0M13M	CC	0.001 UF 250V E
R5814	R808R9332J	RC	3.3K OHM 1/16W	△ C542	P4NBE4223J	CMPP	0.022 UF 400
R5815	R808R9332J	RC	3.3K OHM 1/16W	C2801	CS0UB0N15K	CC	0.1 UF 10V B
R5817	R808R9682J	RC	6.8K OHM 1/16W	C2805	CS0UB0214K	CC	0.01 UF 16V B
R5818	R808R9101J	RC	100 OHM 1/16W	C2807	CS0UCH4K1J	CC	27 PF 50V CH
R5820	R808R9220J	RC	22 OHM 1/16W	C2808	CS0UCH4K1J	CC	27 PF 50V CH
R6207	R808R9103J	RC	10K OHM 1/16W	C2809	CS0UB0413K	CC	0.001 UF 50V B
R6208	R808R9472J	RC	4.7K OHM 1/16W	C2812	CS0UB0N15K	CC	0.1 UF 10V B
R7002	R803R9223J	RC	22K OHM 1/16W	C2813	CS0PB0N16K	CC	1 UF 10V B
R7003	R803R9100J	RC	10 OHM 1/16W	C2814	CS0PB0N16K	CC	1 UF 10V B
R7004	R803R9103F	RC	10K OHM 1/16W	C2815	CS0UB0N15K	CC	0.1 UF 10V B
R7005	R803R9102F	RC	1K OHM 1/16W	C2816	CS0UB0N15K	CC	0.1 UF 10V B
R7009	R861R41R5F	RC	1.5 OHM 1/4W	C2817	CS0PB0N16K	CC	1 UF 10V B
R7010	R861R41R5F	RC	1.5 OHM 1/4W	C2818	CS0UB0N15K	CC	0.1 UF 10V B
R7011	R861R41R5F	RC	1.5 OHM 1/4W	C2819	CS0UB0N15K	CC	0.1 UF 10V B
R7012	R861R41R5F	RC	1.5 OHM 1/4W	C2820	CS0UB0N15K	CC	0.1 UF 10V B
R7013	R803R9102J	RC	1K OHM 1/16W	C2821	CS0UB0N15K	CC	0.1 UF 10V B
R7014	R803R9102J	RC	1K OHM 1/16W	C2824	CS0PB0N16K	CC	1 UF 10V B
R7015	R803R9101J	RC	100 OHM 1/16W	C2825	CS0UB0N15K	CC	0.1 UF 10V B
R7017	R803R9473J	RC	47K OHM 1/16W	C2826	CS0UB0N15K	CC	0.1 UF 10V B
R7018	R002T4150J	RC	15 OHM 1/4W	C2827	CS0UB0N15K	CC	0.1 UF 10V B
R7601	R803R9470J	RC	47 OHM 1/16W	C2828	CS0UB0N15K	CC	0.1 UF 10V B
R7603	R803R9391J	RC	390 OHM 1/16W	C2829	CS0UB0N15K	CC	0.1 UF 10V B
R7604	R803R9391J	RC	390 OHM 1/16W	C2830	CS0UB0N15K	CC	0.1 UF 10V B
R8101	R801R7750J	RC	75 OHM 1/10W	C2831	CS0UB0N15K	CC	0.1 UF 10V B
R8103	R801R7750J	RC	75 OHM 1/10W	C2832	CS0UB0N15K	CC	0.1 UF 10V B
R8107	R801R7750J	RC	75 OHM 1/10W	C2833	CS0UB0214K	CC	0.01 UF 16V B
R8109	R801R7153J	RC	15K OHM 1/10W	C2834	CS0UB0N15K	CC	0.1 UF 10V B
R8112	R801R7153J	RC	15K OHM 1/10W	C2836	CS0RB0PH7M	CC	22 UF 6.3V B
R8113	R801R7101J	RC	100 OHM 1/10W	C2837	CS0UB0N15K	CC	0.1 UF 10V B
R8118	R801R7101J	RC	100 OHM 1/10W	C2838	CS0UB0N15K	CC	0.1 UF 10V B
R8119	R801R7101J	RC	100 OHM 1/10W	C2839	CS0UB0N15K	CC	0.1 UF 10V B
R8121	R801R7750J	RC	75 OHM 1/10W	C2840	CS0RB0PH7M	CC	22 UF 6.3V B
R8123	R803R9682J	RC	6.8K OHM 1/16W	C2841	CS0UB0N15K	CC	0.1 UF 10V B
R8126	R803R9682J	RC	6.8K OHM 1/16W	C2842	CS0UB0N15K	CC	0.1 UF 10V B
R8128	R801R7101J	RC	100 OHM 1/10W	C2843	CS0UB0N15K	CC	0.1 UF 10V B
R8134	R803R9681J	RC	680 OHM 1/16W	C2844	CS0UB0N15K	CC	0.1 UF 10V B
CAPACITORS				C2845	CS0UB0N15K	CC	0.1 UF 10V B
C301	CS0PB0N16K	CC	1 UF 10V B	C2846	CS0UB0N15K	CC	0.1 UF 10V B
C302	CS0RB02Q6K	CC	4.7 UF 16V B	C2847	CS0UB0N15K	CC	0.1 UF 10V B
C303	CS0PB0N16K	CC	1 UF 10V B	C2848	CS0RB0PH7M	CC	22 UF 6.3V B
C304	E8E2U2470D	CE	47 UF 16V	C2849	CS0UB0N15K	CC	0.1 UF 10V B
C305	CS0PCH4Q2J	CC	470 PF 50V CH	C2850	CS0UB0N15K	CC	0.1 UF 10V B
C306	CS0PCH4Q2J	CC	470 PF 50V CH	C2854	CS0PB0315K	CC	0.1 UF 25V B
C307	E8E2U5100D	CE	10 UF 50V	C2855	CS0UB0N15K	CC	0.1 UF 10V B
C309	E8E1T3471M	CE	470 UF 25V	C2856	CS0UB0N15K	CC	0.1 UF 10V B
C310	E9E8T2471M	CE	470 UF 16V	C2857	CS0UB0N15K	CC	0.1 UF 10V B
C311	E9E8T2471M	CE	470 UF 16V	C2858	CS0UB0N15K	CC	0.1 UF 10V B

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
CAPACITORS				CAPACITORS			
C2859	CS0UB0N15K	CC	0.1 UF 10V B	C3041	CS0UB0N16K	CC	1 UF 10V B
C2860	CS0RB0N17K	CC	10 UF 10V B	C3045	CS0RB0PH7M	CC	22 UF 6.3V B
C2861	CS0UB0N15K	CC	0.1 UF 10V B	C3064	CS0PB0PQ6K	CC	4.7 UF 6.3V B
C2862	CS0UB0N15K	CC	0.1 UF 10V B	C3065	CS0RB02Q6K	CC	4.7 UF 16V B
C2863	CS0UB0N15K	CC	0.1 UF 10V B	C3085	CS0PB0N16K	CC	1 UF 10V B
C2864	CS0UB0N16K	CC	1 UF 10V B	C3086	CS0RB0N17K	CC	10 UF 10V B
C2865	CS0UB0N15K	CC	0.1 UF 10V B	C3090	CS0UB0N15K	CC	0.1 UF 10V B
C2866	CS0UB0N15K	CC	0.1 UF 10V B	C3091	CS0UB0N16K	CC	1 UF 10V B
C2867	CS0UB0N15K	CC	0.1 UF 10V B	C3093	CS0RB0N17K	CC	10 UF 10V B
C2868	CS0UB0N15K	CC	0.1 UF 10V B	C3094	CS0PB0N16K	CC	1 UF 10V B
C2869	CS0UB0N15K	CC	0.1 UF 10V B	C3601	CS0UB0N15K	CC	0.1 UF 10V B
C2870	CS0UB0N15K	CC	0.1 UF 10V B	C3608	CS0RB0P17K	CC	10 UF 6.3V B
C2871	CS0UB0N15K	CC	0.1 UF 10V B	C3610	CS0UB04Q3K	CC	0.0047UF 50V B
C2872	CS0UB0N15K	CC	0.1 UF 10V B	C3611	CS0PB0NH6K	CC	2.2 UF 10V B
C2873	CS0UB0N15K	CC	0.1 UF 10V B	C3612	CS0UB04H3K	CC	0.0022UF 50V B
C2874	CS0RB0N17K	CC	10 UF 10V B	C3613	CS0UB0214K	CC	0.01 UF 16V B
C2875	CS0UB0N15K	CC	0.1 UF 10V B	C4219	CS0UCH412J	CC	100 PF 50V CH
C2878	CS0UB0214K	CC	0.01 UF 16V B	C4220	CS0UB0N15K	CC	0.1 UF 10V B
C2879	CS0UB0N15K	CC	0.1 UF 10V B	C4221	CS0UB0N16K	CC	1 UF 10V B
C2880	CS0UB0N15K	CC	0.1 UF 10V B	C4222	CS0UB0N15K	CC	0.1 UF 10V B
C2881	CS0UB0N15K	CC	0.1 UF 10V B	C5801	CS0RB0N17K	CC	10 UF 10V B
C2882	CS0UB0N15K	CC	0.1 UF 10V B	C5802	CS0RB0N17K	CC	10 UF 10V B
C2883	CS0UB0N15K	CC	0.1 UF 10V B	C5803	CS0UB0413K	CC	0.001 UF 50V B
C2884	CS0UB0N15K	CC	0.1 UF 10V B	C5804	CS0RB0N17K	CC	10 UF 10V B
C2885	CS0UB0N15K	CC	0.1 UF 10V B	C5805	CS0RB0N17K	CC	10 UF 10V B
C2886	CS0UB0N15K	CC	0.1 UF 10V B	C5810	CS0UB0215K	CC	0.1 UF 16V B
C2887	CS0UB0NH5K	CC	0.22 UF 10V B	C5812	CS0UB0413K	CC	0.001 UF 50V B
C2888	CS0RB0N17K	CC	10 UF 10V B	C5814	CS0UB0215K	CC	0.1 UF 16V B
C2891	CS0RB0N17K	CC	10 UF 10V B	C5815	CS0UB0N16K	CC	1 UF 10V B
C2894	CS0RB0N17K	CC	10 UF 10V B	C5817	CS0UB0N16K	CC	1 UF 10V B
C2895	CS0UB0N15K	CC	0.1 UF 10V B	C5822	CS0UB0N16K	CC	1 UF 10V B
C2897	CS0RB0N17K	CC	10 UF 10V B	C5823	CS0UB0N16K	CC	1 UF 10V B
C2898	CS0PB0NH6K	CC	2.2 UF 10V B	C5827	CS0UB0N16K	CC	1 UF 10V B
C2899	CS0PB0N16K	CC	1 UF 10V B	C5828	CS0PCK410C	CC	1 PF 50V CK
C2901	CS0UB0N15K	CC	0.1 UF 10V B	C5830	CS0UB0N16K	CC	1 UF 10V B
C2902	CS0RB0N17K	CC	10 UF 10V B	C5832	CS0UB0215K	CC	0.1 UF 16V B
C2903	CS0UB0413K	CC	0.001 UF 50V B	C5844	CS0UB0214K	CC	0.01 UF 16V B
C2904	CS0UB0413K	CC	0.001 UF 50V B	C5846	CS0UB0215K	CC	0.1 UF 16V B
C2905	CS0RB0NH6K	CC	2.2 UF 10V B	C5848	CS0UB04Q3K	CC	0.0047UF 50V B
C2906	CS0RB0NH6K	CC	2.2 UF 10V B	C5849	CS0UB04Q3K	CC	0.0047UF 50V B
C2907	CS0UB0N15K	CC	0.1 UF 10V B	C6201	CS0UB0215K	CC	0.1 UF 16V B
C2910	CS0RB0PH7M	CC	22 UF 6.3V B	C6202	CS0UB0215K	CC	0.1 UF 16V B
C2911	CS0RB0PH7M	CC	22 UF 6.3V B	C6210	CS0UB0P14K	CC	0.01 UF 6.3V B
C2914	CS3RB0217K	CC	10 UF 16V B	C6211	CS0UB03H4K	CC	0.022 UF 25V B
C2917	CS0RB0PH7M	CC	22 UF 6.3V B	C6213	CS0PB0N16K	CC	1 UF 10V B
C2918	CS0RB0PH7M	CC	22 UF 6.3V B	C7003	CS0PB0316K	CC	1 UF 25V B
C2921	CS0RB0PH7M	CC	22 UF 6.3V B	C7004	CS0PB0PQ6K	CC	4.7 UF 6.3V B
C2922	CS0RB0PH7M	CC	22 UF 6.3V B	C7005	CS0PB0316K	CC	1 UF 25V B
C2923	CS0PB0P17M	CC	10 UF 6.3V B	C7006	CS0PCH412J	CC	100 PF 50V CH
C2924	CS0UB0N15K	CC	0.1 UF 10V B	C7008	CS0PB0316K	CC	1 UF 25V B
C2925	CS0UB0N15K	CC	0.1 UF 10V B	C7009	CS0PB0316K	CC	1 UF 25V B
C2926	CS0UB0N15K	CC	0.1 UF 10V B	C7010	E8EMU3470D	CE	47 UF 25V
C2976	CS0UB0N15K	CC	0.1 UF 10V B	C7013	CS0PB0413K	CC	0.001 UF 50V B
C3002	CS0PB0413K	CC	0.001 UF 50V B	C7601	CS0PCH412J	CC	100 PF 50V CH
C3003	CS0RB0N17K	CC	10 UF 10V B	C7602	E70QU0101M	CE	100 UF 6.3V
C3004	CS0RB0N17K	CC	10 UF 10V B	C7603	CS0PB0315K	CC	0.1 UF 25V B
C3008	CS0UB0N16K	CC	1 UF 10V B	C7604	CS0PB0315K	CC	0.1 UF 25V B
C3009	CS0RB0N17K	CC	10 UF 10V B	C8101	CS0PCH4U1J	CC	68 PF 50V CH
C3011	CS0PB0N16K	CC	1 UF 10V B	C8103	CS0PCH4U1J	CC	68 PF 50V CH
C3012	CS0UB0N15K	CC	0.1 UF 10V B	C8108	CS0PCH4U1J	CC	68 PF 50V CH
C3014	CS0RB0N17K	CC	10 UF 10V B	DIODES			
C3018	CS0UB0413K	CC	0.001 UF 50V B	△ D505	D4CTN40060	DIODE SILICON	1N4006-A5
C3019	CS0UB0214K	CC	0.01 UF 16V B	D506	D4JX001F50	DIODE SILICON	1F5
C3021	CS0RB0N17K	CC	10 UF 10V B	△ D507	D4JXRM11C0	DIODE SILICON	ZRM11C
C3023	CS0UB0NH5K	CC	0.22 UF 10V B	△ D508	D4JXRM11C0	DIODE SILICON	ZRM11C
C3024	CS0UB0214K	CC	0.01 UF 16V B	△ D510	D4JXRM11C0	DIODE SILICON	ZRM11C
C3025	CS0RB0N17K	CC	10 UF 10V B	△ D511	D4JX001F50	DIODE SILICON	1F5
C3027	CS0UB0315K	CC	0.1 UF 25V B	D512	DJBUA12012	DIODE ZENER	HZS12NB2
C3028	CS0RB0N17K	CC	10 UF 10V B	△ D513	D4JXARS010	DIODE SILICON	SARS01
C3029	CS0RB0N17K	CC	10 UF 10V B	△ D514	D28A10A100	DIODE SCHOTTKY BARRIER	FCH10A10
C3030	CS0UB0315K	CC	0.1 UF 25V B	△ D516	D1VT001330	DIODE,SILICON	1SS133T-77
C3031	CS0UB04H3K	CC	0.0022UF 50V B	D517	D97U01301B	DIODE,ZENER	MTZJ13B T-77
C3032	CS0UB04H3K	CC	0.0022UF 50V B	△ D518	D4JXRM11C0	DIODE SILICON	ZRM11C
C3035	CS0RB0PH7M	CC	22 UF 6.3V B	△ D523	D2AA045CT0	DIODE SCHOTTKY BARRIER	MBRF1045CT
C3036	CS0RB0PH7M	CC	22 UF 6.3V B	D526	DJBUA22012	DIODE ZENER	HZS22NB2
C3039	CS0RB0PH7M	CC	22 UF 6.3V B	△ D527	DJBUA33012	DIODE ZENER	HZS33NB2
C3040	CS0RB0N17K	CC	10 UF 10V B	△ D528	DJBUA33012	DIODE ZENER	HZS33NB2

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
DIODES				JACKS			
D3002	D27RB056L0	DIODE SCHOTTKY	RB056L-40TE25	J5801	06K6910002	CONNECTOR PCB SIDE	FG-01-1
D3003	D27RB056L0	DIODE SCHOTTKY	RB056L-40TE25	J8101	060K411064	RCA JACK	AV2-13P-68S1H
D3007	D27RB056L0	DIODE SCHOTTKY	RB056L-40TE25	J8102	060R431044	RCA JACK	RCA-421NI-8-24
D3010	DD1R0100L0	DIODE SILICON	DA2J10100L	J8104	060K131029	HEADPHONE JACK	CKX-035-309A01H
D3011	DD1R0100L0	DIODE SILICON	DA2J10100L	SWITCHES			
D5801	D61R0V8001	DIODE VARISTA	EZJ20V80010	SW2201	0504101T34	SWITCH,TACT	EVQ21505R
D6206	DGERMA1110	DIODE SILICON	MA111-(TX)	SW2202	0504101T34	SWITCH,TACT	EVQ21505R
D7001	D27RX301L0	DIODE SCHOTTKY	RSX301L-30TE25	SW2203	0504101T34	SWITCH,TACT	EVQ21505R
D7003	D2LT000400	DIODE SCHOTTKY	1S40-E	SW2204	0504101T34	SWITCH,TACT	EVQ21505R
D7601	0021E9Q010	LED	LTL-1BEFJ-002A	SW2205	0504101T34	SWITCH,TACT	EVQ21505R
D8107	DD1R0100L0	DIODE SILICON	DA2J10100L	SW2206	0504101T34	SWITCH,TACT	EVQ21505R
ICS				SW2207	0504101T34	SWITCH,TACT	EVQ21505R
△ IC301	I03SP20520	SOUND AMP 5W 2CH	LA42052-E	P.C.BOARD ASSEMBLIES			
△ IC501	ICAJ056400	POWER IC CONTROL	FA5640N-D1-TE1	PCB240	A3FR03W240	POWER PCB ASS'Y	CEK681A
△ IC502	1IKJ9A431A	VARIABLE SHUNT REGULATOR TAPE	KIA431A-AT	PCB270	A3FR03W270	OPERATION PCB ASS'Y	CEK678A
△ IC505	000220002W	PHOTO COUPLER	PS2561AL1-1-V(W)	PCBD90	A3FR03WD90	SIDE JACK PCB ASS'Y	CEK636A
IC2801	I56M069830	SCALER C8	R8A66983BG-U0	PCBDA0	A3FR03WDA0	REMOCON PCB ASS'Y	CEK679A
IC2802	IGXM05162E	DDR2-800 512M CL=5	H5PS5162FFR-S5C	PCBF40	A3FR03WF40	MAIN PCB ASS'Y	CMK202A
IC2803	S3FR03WE01	MEMORY DATA EEPROM SOP8 32K	FT24C32A-USR-T	MISCELLANEOUS			
IC2804	-----	MEMORY DATA 32MBIT FLASH TSOP8	EN25F32-100HIP(T)	B301	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
IC2805	1IJN062050	500MA HIGH SIDE SW	MP6205DD-LF-Z	B307	024HC13914	CORE,BEADS	HCB3216KF-391T20
IC2806	I55J0052A0	DUAL 4CH ANALOG MULTIPLEXER	TC74VHC4052AFTELKM	B308	024HC13914	CORE,BEADS	HCB3216KF-391T20
△ IC3001	ILNJ082930	3A STEP-DOWN CONVERTER	RT8293BHGSP	B310	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
△ IC3003	ILNJ990250	REGULATOR 1.8V	RT9025-18GSP	B2801	024NC52211	CORE,BEADS	EBMS160808A221_0.6A
△ IC3004	1I2F9K5010	REGULATOR 5.0V	RP131K501D-TR	B2802	024NC52211	CORE,BEADS	EBMS160808A221_0.6A
△ IC3005	1I2F9K3310	REGULATOR 3.3V	RP131K331D-TR	B2803	024NC56004	CORE,BEADS	ACMS201209A600_RDC025
△ IC3006	ILNJ082930	3A STEP-DOWN CONVERTER	RT8293BHGSP	B2805	024HC51816	CORE,BEADS	HCB1608KF-181T20
△ IC3009	1I2F9121D0	REGULATOR 1.2V	RP131H121D-T1-F	B2806	024NC52212	CORE,BEADS	ACMS160808A221_2A
△ IC5801	1I2F9K3310	REGULATOR 3.3V	RP131K331D-TR	B2807	024NC52212	CORE,BEADS	ACMS160808A221_2A
△ IC5802	1I2F9K1810	REGULATOR 1.8V	RP131K181D-TR	B2808	024NC52212	CORE,BEADS	ACMS160808A221_2A
IC5803	ILVN003010	WW RF SI-TUNER	MXL301RF	B2809	024NC52212	CORE,BEADS	ACMS160808A221_2A
IC6201	IC7C0292C0	RESET IC 2.9V CMOSL" SC-88A"	R3111Q292C-TR-FE	B2810	024NC52212	CORE,BEADS	ACMS160808A221_2A
IC7001	ILAJOZ5230	LED DRIVER IC	OZ523GN-A-0-TR	B2811	024NC52212	CORE,BEADS	ACMS160808A221_2A
TRANSISTORS				B2812	024NC52212	CORE,BEADS	ACMS160808A221_2A
Q303	T8RA030520	TRANSISTOR SILICON	2SC3052-T1	B2813	024NC52212	CORE,BEADS	ACMS160808A221_2A
△ Q501	TJA0N50FS0	FET	KHB9DON50F2-U/P	B3004	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q502	TAAA1504SY	TRANSISTOR SILICON	KTA1504S_Y_RTK	B3010	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
Q503	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK	B3011	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
Q504	TNAAC05002	COMPOUND TRANSISTOR	KRC103SRTK	B3012	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
Q2801	TNRAC05003	COMPOUND TRANSISTOR	RT1N241C-T112-1	B3015	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
Q2808	TJ5A104TU0	FET	SSM3K104TU(T5L,T)	B3020	024NC51812	CORE,BEADS	ACMS160808A181_RDC08
Q3003	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T112-1	B3601	024NC52212	CORE,BEADS	ACMS160808A221_2A
Q3004	TPRAC05003	COMPOUND TRANSISTOR	RT1P241C-T112-1	B4205	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q3007	TJRA12AU10	FET	INK0012AU1	B5802	024NC51212	CORE,BEADS	ACMS160808A121_2A
△ Q3008	TJ5MC61100	FET	TPC6110(TE85L,F,M)	B5803	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q3601	TJRA12AU10	FET	INK0012AU1	B5804	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q3602	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T112-1	B5805	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q3604	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T112-1	B5806	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q3608	TJRA12AU10	FET	INK0012AU1	B5808	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q3609	TJRA12AU10	FET	INK0012AU1	B5809	024NC51212	CORE,BEADS	ACMS160808A121_2A
Q4202	T8RA030520	TRANSISTOR SILICON	2SC3052-T1	CD302	06GG250029	CONNECTOR PCB SIDE	A2001WV-5A
Q4203	TJRA12AU10	FET	INK0012AU1	△ CD501	120Q118902	CORD SET AC	P201-2980-1
Q4204	TJRA12AU10	FET	INK0012AU1	CP301	069S140419	CONNECTOR PCB SIDE	A2502WV2-4P
Q6203	TPRAC05003	COMPOUND TRANSISTOR	RT1P241C-T112-1	CP501	069E7G0630	CONNECTOR PCB SIDE	00_6216_016_000_808+
Q6204	TPRAC05003	COMPOUND TRANSISTOR	RT1P241C-T112-1	CD2801	06EH2U0501	CORD CONNECTOR	EH2U0501
Q6205	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T112-1	CD3002	122H0F0702	CORD JUMPER	2H0F0702
Q7001	TS3M000074	COMPOUND TRANSISTOR	MCH3479-TL-H	CD4202	12C50S0601	CORD JUMPER	H03279-A
Q8103	TNRAB05004	COMPOUND TRANSISTOR	RT1N141C-T112-1	CD6204	06CH233504	CORD CONNECTOR	CH233504
COILS & TRANSFORMERS				CP2201	06GG230019	CONNECTOR PCB SIDE	A2001WR-3A
△ L501	029B000190	COIL,LINE FILTER	JLB20143	CP2801	06GG270029	CONNECTOR PCB SIDE	A2001WV-7A
L503	02167E100K	COIL	10 UH	CP2802	06GG2B0029	CONNECTOR PCB SIDE	A2001WV-11A
L504	02167E100K	COIL	10 UH	CP2803	06GSA01010	CONNECTOR PCB SIDE	C-001-5-4K221000
L2801	02DA000124	COIL CHOKE	DLP11SN900HL2L	CP2804	06GG2U0049	CONNECTOR PCB SIDE	A2006WR-2*15P
L3001	021AMF6R8P	COIL	6.8 UH	CP3003	069E7G0630	CONNECTOR PCB SIDE	00_6216_016_000_808+
L3002	021AMF3R3P	COIL	3.3 UH	CP3601	06GSYJ302C	CONNECTOR PCB SIDE	C-HDM-2-KK223000
L3601	02D1000119	COIL CHOKE	EXC28CG900U	CP4202	069EVS3030	CONNECTOR PCB SIDE	00_6232_028_006_800+
L3602	02D1000119	COIL CHOKE	EXC28CG900U	CP4203	06G7S21501	CONNECTOR PCB SIDE	WD-00021-R
L5807	021AML5N6E	COIL	0.0056UH	CP7001	069EV73030	CONNECTOR PCB SIDE	00_6232_007_006_800+
L5808	021AMK3N6C	COIL	0.0036UH	CP7601	06CH251007	CORD CONNECTOR	CH251007
L5809	021AML33NJ	COIL	0.033 UH	CP8102	069EVS3030	CONNECTOR PCB SIDE	00_6232_028_006_800+
L5810	021AMLR12J	COIL	0.12 UH	EL2401	124116281A	EYE LET	EYE LET XRY16X28BD
L7002	021DON100M	COIL	10 UH	EL2402	124120301A	EYE LET	EYE LET XRY20X30BD
△ T501	0481291604	TRANSFORMER,SWITCHING	81291604	△ F501	0805T04001	FUSE	SCT 4A
JACKS				NR2806	110P2000M2	R,NETWORK	2D02WGJ0000TCE
△ J502	064Q1A0014	JACK,AC	CCT2302-0921FC	NR2807	110P2000M2	R,NETWORK	2D02WGJ0000TCE
J4201	060K401144	RCA JACK	AV-4B-75H	NR2808	110P2000M2	R,NETWORK	2D02WGJ0000TCE
J4302	060K131027	HEADPHONE JACK	CKX-035-349ABZ1	NR2809	11074223M7	R,NETWORK	CRA108223JV

ELECTRICAL REPLACEMENT PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	
MISCELLANEOUS			
	NR2810	11074223M7	R,NETWORK CRA108223JV
	NR2811	11074223M7	R,NETWORK CRA108223JV
	NR2812	110P2000M2	R,NETWORK 2D02WGJ0000TCE
	NR2813	11074223M7	R,NETWORK CRA108223JV
	NR2816	110P2000M2	R,NETWORK 2D02WGJ0000TCE
	OS7601	077Q038009	REMOTE RECEIVER KSM-2003TCW2P
	SH502	126D000045	TERMINAL PIN YQ-12
	SH503	126D000045	TERMINAL PIN YQ-12
	SH505	126D000045	TERMINAL PIN YQ-12
	SH507	126D000045	TERMINAL PIN YQ-12
△	SP301	070Y433020	SPEAKER S0307F08-F
	SH3001	126D000045	TERMINAL PIN YQ-12
	SH3003	126D000045	TERMINAL PIN YQ-12
	SH3004	126D000045	TERMINAL PIN YQ-12
△	TH501	DSVD8E4R7M	THERMISTOR B57153S0479A001
	TM101	076E0RU01A	TRANSMITTER CRB07G01
△	V7201	A3FR03WFM0	LED MODULE ASS'Y M185B3-PA1-LED BR5
	X2801	100JT02513	CRYSTAL KAC-2010
	X5801	100DT02425	CRYSTAL DSX321G

RESISTOR

RC..... CARBON RESISTOR

CAPACITORS

CC..... CERAMIC CAPACITOR
 CE..... ALUMI ELECTROLYTIC CAPACITOR
 CP..... POLYESTER CAPACITOR
 CPP..... POLYPROPYLENE CAPACITOR
 CPL..... PLASTIC CAPACITOR
 CMP..... METAL POLYESTER CAPACITOR
 CMPL..... METAL PLASTIC CAPACITOR
 CMPP..... METAL POLYPROPYLENE CAPACITOR

SPEC.NO.	M3FR-03W
O/R NO.	K113146